CUMULATIVE AUTHOR INDEX

VOLUMES 26–50

A

Abramson, J.J. and Salama, G.
Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

Acharya, H.R., Stern, S.A., Liu, Z.Z. and Cabasso, I.
Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Afrassiabi, A., Hoffman, A.S. and Cadwell, L.A.
Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Agishi, T. and Mineshima, M.
Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Aguilella, V.M., Garrido, J., Mafé, S. and Pellicer, J.
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Aguilella, V.M., see Mafé, S. 36 (1988) 497

Aguilella, V.M., see Pellicer, J. 29 (1986) 117

Ahmad, M., see Arif, H. 46 (1989) 203

Aïm, R. Ben, see Visvanathan, C. 45 (1989) 3

Aimar, P., Baklouti, S. and Sanchez, V.
Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

Aimar, P., see Nobrega, R. 45 (1989) 17

Aimar, P., Taddei, C., Lafaille, J.-P. and Sanchez, V.
Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Aithal, U. Shanthamurthy, Aminabhavi, T.M. and Cassidy, P.E.
Interactions of organic halides with a polyurethane elastomer 50 (1990) 225

Akiyama, T., see Nakanishi, T. 47 (1989) 67

Al-Lian, S.L., see Shu-Sen, S.W. 44 (1989) 245

Alexander, P.R. and Callahan, R.W.
Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

Alfani, F., see Cantarella, M. 41 (1989) 225

Alger, M.M. and Stanley, T.J.
Measurement of transport parameters in polymer films: flux overshoot produced by a step change in temperature 40 (1989) 87

Alhaique, F., Memoli, A., Santucci, E. and Olana, F.
Effects of environmental conditions on the transport of organic molecules through Nafion membranes 45 (1989) 55

Allen, C.A., Cummings, D.G., Grey, A.E., McAtee, R.E. and McCaffrey, R.R.
Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Allen, C.A., Cummings, D.G. and McCaffrey, R.R.
Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Allen, C.A., see McCaffrey, R.R. 28 (1986) 47

Allen, M.T., Miola, L., Shin, D.M., Suddaby, B.R. and Whitten, D.G.
Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Alvi, N.I., see Siddiqi, F.A. 46 (1989) 185

Amarantos, S.G., Papadokostaki, K. and Petropoulos, J.H.
Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Amaya, A., see Pannell, K.H. 32 (1987) 83

Ambrosone, L., Guarino, G., Sartorio, R. and Vitagliano, V.
Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

Aminabhavi, T.M., see Shanthamurthy Aithal, U. 50 (1990) 225

Anderson, J.L., see Idol, W.K. 28 (1986) 269

Anderson, J.L., see Kim, J.T. 47 (1989) 163

Anderson, M.A., Gieselmann, M.J. and Xu, Q.
Titania and alumina ceramic membranes 39 (1988) 243

Angelopoulos, A.P., Meldon, J.H. and Schneider, N.S.
Analysis of membrane permeation from a deposited droplet 34 (1987) 317

Aparicio, J., see Fernandez, L. 27 (1986) 77

Aparicio, J.L., see Fernández, L.A. 44 (1989) 213

Appelhans, A.D., see McCaffrey, R.R. 28 (1986) 47

Aptel, P., see Psaume, R. 36 (1988) 373

Arbeloa, M., Neufeld, R.J. and Chang, T.M.S.
Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Arif, H., Khan, H.R., Shoaib, M., Ahmad, M., Hasan, M., Seth, T.D. and Mahdi, S.Q.
Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203
Aris, R., see Cussler, E.L. 38 (1988) 161
Aris, R., see Cussler, E.L. 43 (1989) 149
Arisawa, J. and Misawa, K.
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223
Arisawa, J. and Misawa, K.
Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231
Arisawa, J. and Misawa, K.
Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57
Arkles, B., see Pannell, K.H. 32 (1987) 83
Arnold, Jr., C. and Assink, R.A.
Development of sulfonated polysulfone membranes for redox flow batteries 38 (1988) 71
Arribas, J.I., see Hernández, A. 27 (1986) 131
Arribas, J.I., see Martínez-Villa, F. 36 (1988) 19
Arribas, J.I., see Martínez-Villa, F. 36 (1988) 31
Arthur, S.D.
Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243
Asada, E., see Mizutani, Y. 42 (1989) 233
Asaka, K.
Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71
Asakura, T., see Nakao, S.-I. 30 (1987) 273
Asfour, A.-F.A., see Rautenbach, R. 36 (1988) 445
Ashworth, A.J. and Wickham, M.D.
Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225
Assink, R.A., see Arnold, Jr., C. 38 (1988) 71
Athayde, A.L., see Gallagher, P.M. 29 (1986) 49
Atieh, S. and Cheh, H.Y.
Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243
Atieh, S. and Cheh, H.Y.
Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259
Auclair, B., see Ktari, T. 32 (1987) 251
Audinos, R.
Improvement of metal recovery by electrodialysis 27 (1986) 143
Audinos, R.
Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115
Aurelle, Y., see Psaume, R. 36 (1988) 373

B

Babcock, W.C., Friesen, D.T. and Lachapelle, E.D.
Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303
Back, S.L., see Bhattacharyya, D. 48 (1990) 231
Bacon, E. and Kirch, M.
Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159
Baeyer, H. Von, Lajous-Petter, A., Debrandt, W., Hampl, H., Kochinke, F. and Herbst, R.
Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215
Baeyer, H. Von, see Kochinke, F. 36 (1988) 101
Baker, R.W., Roman, I.C. and Lonsdale, H.K.
Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15
Baker, R.W., see Blume, I. 49 (1990) 253
Baker, R.W., see Johnson, B.M. 31 (1987) 31
Baker, R.W., Yoshioka, N., Mohr, J.M. and Khan, A.J.
Separation of organic vapors from air 31 (1987) 259
Baklouti, S., see Aimar, P. 29 (1986) 207
Balmann, H. De, see Nobrega, R. 45 (1989) 17
Balmann, H. De and Nobrega, R.
The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311
Bannard, R.A.B., see Sipehia, R. 29 (1986) 277
Bannard, R.A.B., see Sipehia, R. 47 (1989) 293
Barbari, T.A., Koros, W.J. and Paul, D.R.
Polymeric membranes based on bisphenol-A for gas separations 42 (1989) 69
Barbari, T.A., see O'Brien, K.C. 29 (1986) 229
Barbieri, G., see Milinari, R. 36 (1988) 525

Bargeman, D., see Franken, A.C.M. 33 (1987) 315
Bargeman, D., see Te Hennepe, H.J.C. 35 (1987) 39
Bariou, B., see Danes, F.E. 50 (1990) 177
Bariou, B., see Poyen, S. 43 (1989) 47
Barnett, S.M., see Irwin, K.J. 47 (1989) 79
Barrie, J.A., Sagoo, P. and Thomas, A.G.
Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229
Bart, H.J., Wachter, R., Marr, R. and Müller, H.J.
Mass transfer in a permeation column 36 (1988) 413
Bartels, C.R.
A surface science investigation of composite membranes 45 (1989) 225
Bartels, C.R., Kreuz, K.L. and Wachtel, A.
Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291
Bartels, P.V., see De Haan, A.B. 45 (1989) 281
Bartsch, R.A., see Walkowiak, W. 32 (1987) 59
Basu, A.S., see Samanta, T. 31 (1987) 89
Basu, A.S., see Samanta, T. 45 (1989) 247
Basu, S., see Chakravorty, B. 41 (1989) 155
Batchu, H.R., see Venkataraman, K. 39 (1988) 259
Bauser, H., Chmiel, H., Stroh, N. and Walitza, E.
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195
Baysal, B.M., see Erbil, H.Y. 26 (1986) 199
Beasley, J.K., see Jordan, S.M. 43 (1989) 103
Becchi, I., see Munari, S. 41 (1989) 69
Behbahani, H.F. and Inoue, H.
A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131
Belfort, G.
Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245
Belfort, G.
Fluid mechanics in membrane filtration: recent developments 40 (1989) 123
Belfort, G., see Chatterjee, S.G. 28 (1986) 191
Belfort, G., see Lee, Y.M. 44 (1989) 161
Bell, C.M., Gerner, F.J. and Strathmann, H.
Selection of polymers for pervaporation membranes 36 (1988) 315
Bell, C.M., see Kimmerle, K. 36 (1988) 477
Bellobono, I.R., see Zeni, M. 36 (1988) 277
Bellucci, F., see Nicodemo, L. 43 (1989) 177
Bemquerer-Costa, A., see Rautenbach, R. 36 (1988) 445
Ben Aïm, R., see Visvanathan, C. 45 (1989) 3
Bencivenga, U., see Pagliuca, N. 33 (1987) 1
Berg, G.B. Van den, Hanemaaijer, J.H. and Smolders, C.A.
Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307
Berg, G.B. Van den, Rácz, I.G. and Smolders, C.A.
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25
Berg, G.B. Van den and Smolders, C.A.
The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149
Berg, G.B. Van den and Smolders, C.A.
Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1
Berg, J.W.A. Van den, see Reuvers, A.J. 34 (1987) 45
Bergez, M., see Poyen, S. 43 (1989) 47
Bersillon, J.L., see Côté, P. 47 (1989) 91
Bersillon, J.L., see Psaume, R. 36 (1988) 373
Bezenshek, E., see Boyadzhiev, L. 37 (1988) 277
Bhattacharya, P.K., see Mishra, A.K. 33 (1987) 83
Bhattacharyya, D., Back, S.L., Kermode, R.I. and Roco, M.C.
Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231
Bhave, R.R., see Hsieh, H.P. 39 (1988) 221
Bhave, R.R., see Prasad, R. 26 (1986) 79
Bhave, R.R. and Sirkar, K.K.
Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41
Bijsterbosch, B.H., see Fontyn, M. 36 (1988) 141
Birkenberger, R., see Schock, G. 41 (1989) 55
Blakely, D.W., see Mercurio-Cason, M.A. 27 (1986) 31
Blokhra, R.L. and Kumar, S.
Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31
Blume, I., see Pinnau, I. 37 (1988) 81
Blume, I., Wijmans, J.G. and Baker, R.W.
The separation of dissolved organics from water by pervaporation 49 (1990) 253
Bo, E., see Rautenbach, R. 36 (1988) 445
Bobreshova, O.V., Kulintsov, P.J. and Timashev, S.F.
Non-equilibrium processes in the

concentration-polarization layers at the membrane/solution interface 48 (1990) 221
Bode, E.
A simple method to derive activity profiles and diffusivities of permeants in a membrane from steady state permeation measurements 50 (1990) 1
Boggs, D.R., see Stromberg, R.R. 44 (1989) 131
Bohrer, M.P., see O'Hara, P.A. 44 (1989) 273
Bohwn, A., see Cussler, E.L. 43 (1989) 149
Bonincontro, A., Cametti, C., Rosi, A. and Sportelli, L.
Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345
Boomgaard, T. Van den, see Hanemaaijer, J.H. 40 (1989) 199
Bostanjoglo, M., see Siegel, G. 41 (1989) 353
Bottino, A., see Munari, S. 41 (1989) 69
Bourgeois, D., see Lee, Y.M. 44 (1989) 161
Bowen, W.R., Kingdon, R.S. and Sabuni, H.A.M.
Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219
Boyadzhiev, L. and Bezenshek, E.
Liquid film pertraction. Recovery of iodine from iodine-containing aqueous solutions 37 (1988) 277
Bradshaw, J.S., see Izatt, R.M. 26 (1986) 241
Bradshaw, J.S., see Izatt, R.M. 31 (1987) 1
Brannon, M.L. and Peppas, N.A.
Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125
Brannon-Peppas, L., see Peppas, N.A. 48 (1990) 281
Breitenbach, S., see Schnabel, R. 36 (1988) 55
Brinkman, D., see Keurentjes, J.T.F. 47 (1989) 333
Bromberg, L.E., see Kocherginsky, N.M. 30 (1987) 39
Browall, W.R., see Kimura, S.G. 29 (1986) 69
Browall, W.R., see Matson, S.L. 29 (1986) 79
Brown, P.R., see Izatt, R.M. 28 (1986) 69
Brown, P.R., see Walkowiak, W. 32 (1987) 59
Bruening, R.L., see Izatt, R.M. 28 (1986) 77
Bruening, R.L., see Izatt, R.M. 33 (1987) 169
Bruening, R.L., see Izatt, R.M. 45 (1989) 73
Bruening, R.L., see Lamb, J.D. 37 (1988) 13
Bryjak, M., Wieczorek, P., Kafarski, P. and Lejczak, B.
Crown-ether mediated transport of amino acids through an immobilized liquid membrane 37 (1988) 287
Bryk, M.T., see Tsapiuk, E.A. 47 (1989) 107
Bryk, M.T., see Tsapiuk, E.A. 48 (1990) 1
Burford, R.P., see Yao, C.W. 38 (1988) 113
Burgard, M., see Tromp, M. 38 (1988) 295
Burggraaf, A.J., see Keizer, K. 39 (1988) 285
Burggraaf, A.J., see Uhlhorn, R.J.R. 46 (1989) 225
Bush, D.L. and Rechnitz, G.A.
Antibody response of polymer membrane electrodes incorporating antigenic ionophores 30 (1987) 313

C

Cabasso, I., Liu, Z.-Z. and Makenzie, T.
The permselectivity of ion-exchange membranes for non-electrolyte liquid mixtures. II. The effect of counterions (separation of alcohol/water mixtures with Nafion membranes) 28 (1986) 109
Cabasso, I., see Acharya, H.R. 37 (1988) 205
Cackovic, H., Schwengers, H.-P., Springer, J., Laschewsky, A. and Ringsdorf, H.
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63
Cadwell, L.A., see Afrassiabi, A. 33 (1987) 191
Calabro, V., see Drioli, E. 33 (1987) 277
Caldecourt, V. and Tou, J.C.
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1
Callahan, R.W., see Alexander, P.R. 35 (1987) 57
Callahan, R.W., see Jackman, D.C. 30 (1987) 213
Calvin, M.
Artificial photosynthesis 33 (1987) 137
Calvin, M., see Wamser, C.C. 28 (1986) 31
Cametti, C., see Bonincontro, A. 41 (1989) 345
Cantarella, L., see Cantarella, M. 41 (1989) 225
Cantarella, M., Cantarella, L., Cirielli, G., Gallifuoco, A. and Alfani, F.
Sucrose bioconversion in membrane reactors 41 (1989) 225
Capannelli, G., see Munari, S. 41 (1989) 69
Carbonell, R.G., see Cwirko, E.H. 48 (1990) 155

Carfagna, C., see Nicodemo, L. 43 (1989) 177
Cassidy, P.E., see Shanthamurthy Aithal, U. 50 (1990) 225
Castagnola, A.M., see Fabiani, C. 30 (1987) 97
Castillo, L.F. Del and Mason, E.A.
Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229
Castro, E.F., Gonzo, E.E. and Gottifredi, J.C.
Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235
Catapano, G., Iorio, G., Drioli, E. and Filosa, M.
Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325
Catapano, G., see Drioli, E. 27 (1986) 253
Cha, J.-S., see Kim, S.-S. 37 (1988) 113
Chaiko, D.J., see Osseo-Asare, K. 42 (1989) 215
Chakravarti, A.K.
Mobility and self-diffusion coefficient of sulphate co-ion in a grafted cation-exchange membrane 32 (1987) 175
Chakravorty, B., Mukherjee, R.N. and Basu, S.
Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155
Chang, T.M.S., see Arbeloa, M. 29 (1986) 321
Chang, T.M.S., see Sipehia, R. 29 (1986) 277
Chang, T.M.S., see Sipehia, R. 47 (1989) 293
Chang, Y.-L. and Lee, C.-J.
Solute transport characteristics in hemodiafiltration 39 (1988) 99
Chapman, H.L., see Lee, C.-L. 38 (1988) 55
Chatterjee, S.G. and Belfort, G.
Fluid flow in an idealized spiral wound membrane module 28 (1986) 191
Chau, P.C. and Ollis, D.F.
An analysis of catalyzed facilitated transport 33 (1987) 51
Cheh, H.Y., see Atieh, S. 42 (1989) 243
Cheh, H.Y., see Atieh, S. 42 (1989) 259
Chen, C.-Y., see Huang, T.-C. 37 (1988) 131
Chen, S., Kao, Y.-K. and Hwang, S.-T.
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143
Chen, S., see Kao, Y.-K. 32 (1987) 139
Chen, S., see Kothe, K.D. 46 (1989) 261
Chen, Y., Miyano, T., Fouda, A. and Matsuura, T.
Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203
Cherkasov, A.N.
Selective ultrafiltration 50 (1990) 109
Chern, R.T., Jia, L., Shimoda, S. and Hopfenberg, H.B.
A note on the effects of mono- and di-bromination on the transport properties of poly(2,6-dimethylphenylene oxide) 48 (1990) 333
Chern, R.T., see Witchey-Lakshmanan, L.C. 48 (1990) 321
Chern, R.T., Sheu, F.R., Jia, L., Stannett, V.T. and Hopfenberg, H.B.
Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103
Cheryan, M., Veeranjaneyulu, B. and Schlicher, L.R.
Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103
Chiba, H., see Sakai, K. 37 (1988) 101
Chiou, J.S. and Paul, D.R.
Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195
Chiou, J.S. and Paul, D.R.
Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167
Chmiel, H., see Bauser, H. 27 (1986) 195
Chmiel, H., see Gudernatsch, W. 36 (1988) 331
Chmiel, H., see Kimmerle, K. 36 (1988) 477
Cho, M.H., see Izatt, R.M. 33 (1987) 169
Choate, W.T., see Venkataraman, K. 39 (1988) 259
Choe, T.B., Massé, P., Verdier, A. and Clifton, M.J.
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1
Choe, T.B., Massé, P., Verdier, A. and Clifton, M.J.
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17
Choudhury, J.P., Ghosh, P. and Guha, B.K.
Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301
Christen, D., see Heinzelmann, W. 36 (1988) 79
Christensen, J.J., see Izatt, R.M. 26 (1986) 241
Christensen, J.J., see Izatt, R.M. 28 (1986) 69
Christensen, J.J., see Izatt, R.M. 28 (1986) 77
Christensen, J.J., see Izatt, R.M. 31 (1987) 1
Christensen, J.J., see Izatt, R.M. 33 (1987) 169
Christensen, J.J., see Lamb, J.D. 37 (1988) 13

Christian, S.D., see Gibbs, L.L. 30 (1987) 67
Cifuentes, M.E., see Lee, C.-L. 38 (1988) 55
Cirielli, G., see Cantarella, M. 41 (1989) 225
Clark, G.A., see Izatt, R.M. 28 (1986) 77
Clark, G.A., see Izatt, R.M. 31 (1987) 1
Clément, R., see Neel, J. 27 (1986) 217
Clément, R., see Ping, Z.H. 48 (1990) 297
Clifton, M.J., see Choe, T.B. 26 (1986) 1
Clifton, M.J., see Choe, T.B. 26 (1986) 17
Coey, J.M.D., see Lim, S.K. 30 (1987) 171
Coey, J.M.D., see Michas, A. 29 (1986) 239
Cohen, M.D., see Mathiowitz, E. 40 (1989) 1
Cohen, M.D., see Mathiowitz, E. 40 (1989) 27
Cohen, M.D., see Mathiowitz, E. 40 (1989) 43
Cohen, M.D., see Mathiowitz, E. 40 (1989) 55
Cohen, M.D., see Mathiowitz, E. 40 (1989) 67
Cohen, R.D.
Investigation of the effect of solution destabilization on flux enhancement in filtration 32 (1987) 93
Cohen, R.D.
Effect of turbulence on film permeability in cross-flow membrane filtration 48 (1990) 343
Cohen Stuart, M.A., see Keurentjes, J.T.F. 47 (1989) 333
Coleman, M.R. and Koros, W.J.
Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285
Cooper, E.R., see Wu, X. 50 (1990) 57
Cot, L., see Guizard, C. 41 (1989) 127
Cot, L., see Larbot, A. 39 (1988) 203
Cot, L., see Larbot, A. 44 (1989) 289
Côté, P., Bersillon, J.-L. and Huyard, A.
Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91
Coutts, D. and Paterson, R.
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275
Cummings, D.G., see Allen, C.A. 33 (1987) 181
Cummings, D.G., see Allen, C.A. 43 (1989) 217
Cummings, D.G., see McCaffrey, R.R. 28 (1986) 47
Cussler, E.L., Aris, R. and Bohwn, A.
On the limits of facilitated diffusion 43 (1989) 149
Cussler, E.L., Hughes, S.E., Ward, III, W.J. and Aris, R.
Barrier membranes 38 (1988) 161
Cussler, E.L., see D'Elia, N.A. 29 (1986) 309
Cussler, E.L., see Perry, D. 44 (1989) 305
Cussler, E.L., see Qin, R. 50 (1990) 51
Cussler, E.L., see Yang, M.-C. 42 (1989) 273
Cwirko, E.H. and Carbonell, R.G.
A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

D

Dahm, W., see Rautenbach, R. 28 (1986) 319
Dahuron, L., see D'Elia, N.A. 29 (1986) 309
Dai, T., see Nakanishi, T. 32 (1987) 69
Daignault, L.G., see Jackman, D.C. 34 (1987) 109
Daignault, L.G., see Yau, S.-L. 37 (1988) 27
Danes, F.E., Bariou, B. and Poyen, S.
Effects of diffusion and osmosis on flux decline during ultrafiltration with total rejection in an unstirred batch cell 50 (1990) 177
Danesi, P.R.
A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287
Danesi, P.R., Reichley-Yinger, L. and Rickert, P.G.
Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117
Danesi, P.R. and Reichley-Yinger, L.
A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339
Danesi, P.R. and Reichley-Yinger, L.
Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195
Danilenko, E.E., see Tsapiuk, E.A. 48 (1990) 1
Dasgupta, P.K., see Mercurio-Cason, M.A. 27 (1986) 31
Dassie, G., see Reali, M. 48 (1990) 181
Date, M., see Hirata, Y. 41 (1989) 177
Davidson, C.J., Meares, P. and Hall, D.G.
A polymeric electrode for ionic surfactants 36 (1988) 511
Davidson, M.G. and Deen, W.M.
Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167
Davis, J.C. and Stevens, T.S.
Hollow-fiber membrane systems as suppressors in ion chromatography 31 (1987) 249
Davis, R.H., see Romero, C.A. 39 (1988) 157
De-Kuan, S.K., see Shu-Sen, S.W. 44 (1989) 245
De Balmann, H., see Nobrega, R. 45 (1989) 17
De Balmann, H. and Nobrega, R.
The deformation of dextran molecules.

Causes and consequences in ultrafiltration 40 (1989) 311
DeBernardez, E.R., see Forman, S.M. 48 (1990) 263
Debrandt, W., see Von Baeyer, H. 36 (1988) 215
Deen, W.M., see Davidson, M.G. 35 (1988) 167
De Graauw, J., see De Haan, A.B. 45 (1989) 281
De Haan, A.B., Bartels, P.V. and De Graauw, J. Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281
Dejmek, P. and Nilsson, J.L. Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189
Delaney, M.S., Reddy, D. and Wessling, R.A. Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15
Del Castillo, L.F. and Mason, E.A. Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229
D'Elia, N.A., Dahuron, L. and Cussler, E.L. Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309
Demura, M., see Kamo, N. 27 (1986) 233
Denslow, K.R., see Reineke, C.E. 32 (1987) 207
De Rosa, M., see Drioli, E. 27 (1986) 253
Dickson, J.M., see Mehdizadeh, H. 42 (1989) 119
Di Giulio, S., Fabiani, C., Giubileo, G. and Violante, V. The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541
Dimov, A. and Islam, M.A. Hydrophilization of polyethylene membranes 50 (1990) 97
Dindi, H., see Glugla, P.G. 28 (1986) 311
Dobos, M., see Harris, J.L. 41 (1989) 87
Donohue, M.D., Minhas, B.S. and Lee, S.Y. Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197
Doran, P., see Paterson, R. 26 (1986) 289
Doran, P., see Paterson, R. 27 (1986) 105
Dorson, W.J. and Pierson, J.S. Controlling factors in hemofiltration 44 (1989) 35
Downs, W.B., see McCandless, F.P. 30 (1987) 111
Draxler, J., Fürst, W. and Marr, R. Separation of metal species by emulsion liquid membranes 38 (1988) 281
Drioli, E., Iorio, G., Catapano, G., De Rosa, M. and Gambacorta, A. Capillary membrane reactors: performance and applications 27 (1986) 253
Drioli, E., see Catapano, G. 35 (1988) 325
Drioli, E., see Loiacono, O. 28 (1986) 123
Drioli, E., see Milinari, R. 36 (1988) 525
Drioli, E., Wu, Y. and Calabro, V. Membrane distillation in the treatment of aqueous solutions 33 (1987) 277
Duda, J.L., see Vrentas, J.S. 40 (1989) 101
Duggal, A., see Knight, K.F. 26 (1986) 31
Duggal, A. and Thompson, E.V. Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. VI. Experimental results for the water/ethanol system 27 (1986) 13
Dulyea, L.M., Fyles, T.M. and Robertson, G.D. Coupled transport membranes incorporating a polymeric crown ether carboxylic acid 34 (1987) 87
Durand, R., see Michas, A. 29 (1986) 239
Dytnerskii, Y.I., Kagramanov, G.G., Storozhuk, I.P. and Kovalenko, N.F. SO_2 separation from gaseous mixtures by membranes 41 (1989) 49

E

Eguchi, W., see Yoshikawa, M. 47 (1989) 53
Ehrfeld, W., Einhaus, R., Münchmeyer, D. and Strathmann, H. Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67
Einhaus, R., see Ehrfeld, W. 36 (1988) 67
El-Kalay, M.A. A simplified intrinsic rejection coefficient model for capillary hollow fibers 49 (1990) 241
Elizalde, M.P., see Fernández, L.A. 44 (1989) 213
Ellinghorst, G., see Niemöller, A. 36 (1988) 385
Ellinghorst, G., see Wolff, J. 36 (1988) 207
Erbil, H.Y. and Baysal, B.M. A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Eriksson, P.
Water and salt transport through two types of polyamide composite membranes 36 (1988) 297
Escobosa, R., see Sferrazza, R.A. 35 (1988) 125
Escoubes, M., see Thomas, M. 46 (1989) 57
Esnault, P., see Thomas, M. 46 (1989) 57
Ethier, C. Ross and Kamm, R.D.
The hydrodynamic resistance of filter cakes 43 (1989) 19
Eyal, A. and Kedem, O.
Nitrate-selective anion-exchange membranes 38 (1988) 101

F

Fabiani, C., Merigiola, M., Scibona, G. and Castagnola, A.M.
Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97
Fabiani, C., see Di Giulio, S. 36 (1988) 541
Fabre, J.P., see Larbot, A. 39 (1988) 203
Fane, A.G., see Kim, K.J. 43 (1989) 187
Fane, A.G., see Lipp, P. 36 (1988) 161
Fane, A.G., see McDonogh, R.M. 31 (1987) 321
Fane, A.G., see McDonogh, R.M. 43 (1989) 69
Fane, A.G., see Schofield, R.W. 33 (1987) 299
Fane, A.G., see Suki, A. 27 (1986) 181
Fane, A.G., see Yao, C.W. 38 (1988) 113
Farrell, P.C., see Lysaght, M.J. 44 (1989) 5
Faul, W., see Riedinger, H. 36 (1988) 5
Feldberg, R.S., see Forman, S.M. 48 (1990) 263
Feldhoff, P.W., see Ward, R.A. 33 (1987) 97
Fell, C.J.D., see Kim, K.J. 43 (1989) 187
Fell, C.J.D., see Lipp, P. 36 (1988) 161
Fell, C.J.D., see McDonogh, R.M. 31 (1987) 321
Fell, C.J.D., see McDonogh, R.M. 43 (1989) 69
Fell, C.J.D., see Schofield, R.W. 33 (1987) 299
Fell, C.J.D., see Suki, A. 27 (1986) 181
Fell, C.J.D., see Yao, C.W. 38 (1988) 113
Fendler, J.H.
Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323
Fernández, L., Aparicio, J. and Muhammed, M.
Coupled zinc transport through a bis(2-ethylhexyl)phosphoric acid solid-supported liquid membrane from aqueous perchlorate media 27 (1986) 77
Fernández, L.A., Elizalde, M.P. and Aparicio, J.L.
Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213
Fernández-Pineda, C., see Mengual, J.I. 26 (1986) 211
Filosa, M., see Catapano, G. 35 (1988) 325
Fink, K., see Peinemann, K.-V. 27 (1986) 215
Fischel-Ghodsian, F. and Newton, J.M.
Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33
Fleming, G.K., see Jordan, S.M. 30 (1987) 191
Fleming, H.L., see Hsieh, H.P. 39 (1988) 221
Flynn, G.L., see Hagen, T.A. 30 (1987) 47
Fontyn, M., Bijsterbosch, B.H. and Van 't Riet, K.
Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141
Forman, S.M., DeBernardez, E.R., Feldberg, R.S. and Swartz, R.W.
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263
Forte, J., see Ibañez, J.A. 36 (1988) 45
Fouda, A., see Chen, Y. 48 (1990) 203
Franke, M., see Rautenbach, R. 36 (1988) 445
Franken, A.C.M., Nolten, J.A.M., Mulder, M.H.V., Bargeman, D. and Smolders, C.A.
Wetting criteria for the applicability of membrane distillation 33 (1987) 315
Freeman, D.L., see Irwin, K.J. 47 (1989) 79
Friedman, L.I., see Stromberg, R.R. 44 (1989) 131
Friesen, D.T., see Babcock, W.C. 26 (1986) 303
Fritzsche, A.K., Kesting, R.E. and Murphy, M.K.
The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid:base solvent complexes 46 (1989) 135
Fuente, B. Tarodo de la, see Rios, G.M. 34 (1987) 331
Fuente, B. Tarodo de la, see Rios, G.M. 38 (1988) 147
Fujii, S., see Kishihara, S. 41 (1989) 103
Fujimoto, T., see Isono, Y. 43 (1989) 205
Fujimura, Y., see Nakamae, K. 29 (1986) 267
Fujiwara, H., see Imai, Y. 41 (1989) 393
Fürst, W., see Draxler, J. 38 (1988) 281
Furusaki, S., see Saito, K. 34 (1987) 307
Furusaki, S., see Saito, K. 43 (1989) 131
Futamura, H., see Tasaka, M. 28 (1986) 183
Fyles, T.M., see Dulyea, L.M. 34 (1987) 87

G

Gaeta, F.S., see Pagliuca, N. 33 (1987) 1
Gallagher, D., see Klein, L.C. 39 (1988) 213
Gallagher, P.M., Athayde, A.L. and Ivory, C.F.
Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49
Galland, D., see Lim, S.K. 30 (1987) 171
Gallifuoco, A., see Cantarella, M. 41 (1989) 225
Gambacorta, A., see Drioli, E. 27 (1986) 253
García López, F., see Mengual, J.I. 26 (1986) 211
Garrido, J., see Aguilella, V.M. 28 (1986) 139
Gavach, C., Pamboutzoglou, G., Nedyalkov, M. and Pourcelly, G.
AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37
Gavach, C., see Guizard, C. 41 (1989) 127
Gavach, C., see Lindheimer, A. 46 (1989) 125
Gebben, B., Mulder, M.H.V. and Smolders, C.A.
Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29
Gekas, V. and Hallström, B.
Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153
Gekas, V. and Ölund, K.
Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145
Geng, W., see Izatt, R.M. 33 (1987) 169
Gerner, F.J., see Bell, C.M. 36 (1988) 315
Gerner, F.J., see Paul, H. 36 (1988) 363
Ghosh, P., see Choudhury, J.P. 35 (1988) 301
Gibbs, L.L., Scamehorn, J.F. and Christian, S.D.
Removal of n-alcohols from aqueous streams using micellar-enhanced ultrafiltration 30 (1987) 67
Gieselmann, M.J., see Anderson, M.A. 39 (1988) 243
Gigosos, M.A., see Martinez, L. 35 (1987) 1
Giubileo, G., see Di Giulio, S. 36 (1988) 541
Giulio, S. Di, Fabiani, C., Giubileo, G. and Violante, V.
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541
Glaves, C.L. and Smith, D.M.
Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167
Gleason, K.J., see Krantz, W.B. 29 (1986) 11
Glugla, P.G. and Dindi, H.
Transport of aniline, chloroaniline, nitroaniline, and urea through perfluorosulfonated ionomer membranes 28 (1986) 311
Golbeck, J.H.
Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151
Goldfeld, M.G., see Kocherginsky, N.M. 45 (1989) 85
Goldman, M., see Jagur-Grodzinski, J. 43 (1989) 277
Gollan, K.L., see Le, M.S. 40 (1989) 231
González-Caballero, F., see Horno, J. 42 (1989) 1
González-Caballero, F., see Horno, J. 48 (1990) 67
González-Fernández, C.F., see Horno, J. 42 (1989) 1
González-Fernández, C.F., see Horno, J. 48 (1990) 67
Gonzo, E.E., see Castro, E.F. 31 (1987) 235
Gooding, C.H., see Sferrazza, R.A. 35 (1988) 125
Goosen, M.F.A., King, G.A., McKnight, C.A. and Marcotte, N.
Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323
Gostoli, C. and Sarti, G.C.
Separation of liquid mixtures by membrane distillation 41 (1989) 211
Goswami, A.N., see Krishna, R. 34 (1987) 141
Goswami, A.N., see Sharma, A. 32 (1987) 19
Goswami, A.N., see Sharma, A. 40 (1989) 329
Goto, M., see Nakashio, F. 38 (1988) 249
Goto, W., see Takeuchi, H. 33 (1987) 19
Gotoh, M., Tamiya, E. and Karube, I.
Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291
Gottifredi, J.C., see Castro, E.F. 31 (1987) 235
Götz, B., see Niemöller, A. 36 (1988) 385
Govind, R., see Ilias, S. 39 (1988) 125
Graauw, J. De, see De Haan, A.B. 45 (1989) 281
Graf, G.A., see Wamser, C.C. 28 (1986) 31
Greenberg, D.B., see Lee, G.-T. 47 (1989) 183
Grey, A.E., see Allen, C.A. 33 (1987) 181

Grey, A.E., see McCaffrey, R.R. 28 (1986) 47
Groot Wassink, S., see Ronner, J.A. 42 (1989) 27
Gu, Z.M., Wasan, D.T. and Li, N.N.
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129
Guarino, G., see Ambrosone, L. 45 (1989) 299
Gudernatsch, W., Kimmerle, K., Stroh, N. and Chmiel, H.
Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331
Gudernatsch, W., see Kimmerle, K. 36 (1988) 477
Guha, A.K., see Majumdar, S. 43 (1989) 259
Guha, B.K., see Choudhury, J.P. 35 (1988) 301
Guizard, C., Legault, F., Idrissi, N., Larbot, A., Cot, L. and Gavach, C.
Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127
Guizard, C., see Larbot, A. 39 (1988) 203
Guizard, C., see Larbot, A. 44 (1989) 289
Gunnink, J.W., see Hanemaaijer, J.H. 40 (1989) 199

H

Haan, A.B. De, Bartels, P.V. and De Graauw, J.
Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281
Hagen, T.A. and Flynn, G.L.
Permeation of hydrocortisone and hydrocortisone 21-alkyl esters through silicone rubber membranes. Relationship to regular solution solubility behavior 30 (1987) 47
Hakuta, T., see Haraya, K. 41 (1989) 23
Hall, D.G., see Davidson, C.J. 36 (1988) 511
Hallström, B., see Gekas, V. 30 (1987) 153
Hamamoto, T., see Kagawa, Y. 41 (1989) 237
Hampl, H., see Von Baeyer, H. 36 (1988) 215
Hanada, F., see Kobuchi, Y. 27 (1986) 173
Hanada, F., see Sata, T. 28 (1986) 151
Hanemaaijer, J.H., Robbertsen, T., Van den Boomgaard, T. and Gunnink, J.W.
Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199
Hanemaaijer, J.H., see Keurentjes, J.T.F. 47 (1989) 333
Hanemaaijer, J.H., see Van den Berg, G.B. 31 (1987) 307
Haraya, K., Obata, K., Itoh, N., Shndo, Y., Hakuta, T. and Yoshitome, H.
Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23
Harbrecht, J.G., see Keurentjes, J.T.F. 47 (1989) 333
Harris, J.L.
Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97
Harris, J.L. and Dobos, M.
Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87
Hasan, M., see Arif, H. 46 (1989) 203
Hattenbach, K.
A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405
Hauser, J., Reinhardt, G.A., Stumm, F. and Heintz, A.
Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261
Hayano, S., see Yoshida, S. 26 (1986) 99
Hayas, A., see Horno, J. 42 (1989) 1
Hayas, A., see Horno, J. 48 (1990) 67
Hayashi, S., see Hirai, T. 44 (1989) 233
Heaney, M.D. and Pellegrino, J.
Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143
Heintz, A., see Hauser, J. 47 (1989) 261
Heinzelmann, W., Toscan, M., Ruf, A. and Christen, D.
Production and characterization of homogeneous porous polymer films 36 (1988) 79
Hellums, M.W., Koros, W.J., Husk, G.R. and Paul, D.R.
Fluorinated polycarbonates for gas separation applications 46 (1989) 93
Hennepe, H.J.C. Te, Bargeman, D., Mulder, M.H.V. and Smolders, C.A.
Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39
Herbst, R., see Von Baeyer, H. 36 (1988) 215
Herion, C., see Rautenbach, R. 36 (1988) 445
Hernández, A., Ibáñez, J.A., Martínez-Villa, F., Arribas, J.I., Martín-Salas, A. and Tejerina, F.

On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131
Hernandez, A., see Ibañez, J.A. 36 (1988) 45
Hernandez, A., see Martinez, L. 35 (1987) 1
Hicke, H.-G., see Schwarz, H.-H. 34 (1987) 283
Hicke, H.-G., see Schwarz, H.-H. 46 (1989) 325
Higa, M., Tanioka, A. and Miyasaka, K.
Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251
Higa, M., Tanioka, A. and Miyasaka, K.
A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145
Higashimura, T., see Masuda, T. 49 (1990) 69
Higuchi, A. and Nakagawa, T.
Membrane potential and permeation of salts across bipolar membranes 32 (1987) 267
Higuchi, W.I., see Sims, S.M. 49 (1990) 305
Himmelstein, K.J., see Thombre, A.G. 40 (1989) 279
Hirahara, K., see Isono, Y. 43 (1989) 205
Hirai, T., Iijima, M., Miyamura, T. and Hayashi, S.
Uphill transport of iodide ions through a membrane of poly(vinyl acetate)–iodine–iodide complex 44 (1989) 233
Hirashima, Y., see Lamb, J.D. 37 (1988) 13
Hirata, H., see Kagawa, Y. 41 (1989) 237
Hirata, Y., see Yamauchi, A. 32 (1987) 281
Hirata, Y., Yamamoto, Y., Date, M., Yamauchi, A. and Kimizuka, H.
Electrokinetic phenomena in amphoteric membranes 41 (1989) 177
Hirata, Y. and Yamauchi, A.
Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes 48 (1990) 25
Hiratani, K., Taguchi, K., Sugihara, H. and Iio, K.
Synthesis and properties of noncyclic polyether compounds. XV. Noncyclic polyether carriers exhibiting potassium-ion-selective transport through liquid membranes: their structures and cation selectivity 35 (1987) 91
Hirotsu, T. and Isayama, M.
Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137
Hoffman, A.S., see Afrassiabi, A. 33 (1987) 191
Hoffmann, E., Pfenning, D.M., Philippsen, E., Schwahn, P., Sieber, M., Wehn, R., Woermann, D. and Wiedner, G.
Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199
Hölz, W., see Schneider, K. 39 (1988) 25
Honda, K., see Osada, Y. 27 (1986) 327
Hong, J., see Lee, C.K. 39 (1988) 79
Hopfenberg, H.B., see Chern, R.T. 35 (1987) 103
Hopfenberg, H.B., see Chern, R.T. 48 (1990) 333
Hopfenberg, H.B., see Witchey-Lakshmanan, L.C. 48 (1990) 321
Horie, H., see Suhara, M. 41 (1989) 143
Horikoshi, I., see Ueno, M. 41 (1989) 269
Horiuchi, T., see Malchesky, P.S. 44 (1989) 55
Horno, J., González-Caballero, F., Hayas, A. and González-Fernández, C.F.
The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67
Horno, J., González-Fernández, C.F., Hayas, A. and González-Caballero, F.
Application of network thermodynamics to the computer modelling of nonstationary diffusion through heterogeneous membranes 42 (1989) 1
Hsieh, H.P., Bhave, R.R. and Fleming, H.L.
Microporous alumina membranes 39 (1988) 221
Hsieh, K.H., Tsai, C.C. and Tseng, S.M.
Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341
Huang, C.-T., see Huang, T.-C. 29 (1986) 295
Huang, J.C., see Loh, I.-H. 50 (1990) 31
Huang, R.Y.M., see Rhim, J.-W. 46 (1989) 335
Huang, R.Y.M. and Xu, Y.F.
Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143
Huang, T.-C., Lin, Y.-K. and Chen, C.-Y.
Selective separation of nickel and copper from a complexing solution by a cation-exchange membrane 37 (1988) 131
Huang, T.-C. and Huang, C.-T.
The mechanism of transport of uranyl nitrate across a solid supported liquid membrane using tributyl phosphate as mobile carrier 29 (1986) 295
Huang, T.-C. and Juang, R.-S.
Transport of zinc through a supported liquid membrane using di(2-ethylhexyl) phosphoric acid as a mobile carrier 31 (1987) 209

Huang, T.-C. and Lin, Y.-K.
Ion-exchange equilibria involving complex formation in aqueous solution 34 (1987) 127
Huang, T.-C. and Yu, I.-Y.
Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193
Hubble, J., see Turker, M. 34 (1987) 267
Hughes, S.E., see Cussler, E.L. 38 (1988) 161
Hurst, J.K. and Thompson, D.H.P.
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3
Husk, G.R., see Hellums, M.W. 46 (1989) 93
Husk, G.R., see Kim, T.-H. 46 (1989) 43
Husk, G.R., see Kim, T.-H. 37 (1988) 45
Husk, G.R., see O'Brien, K.C. 35 (1988) 217
Husung, R.D., see Venkataraman, K. 39 (1988) 259
Huyard, A., see Côté, P. 47 (1989) 91
Hwang, S.-T., see Chen, S. 26 (1986) 143
Hwang, S.-T., see Kao, Y.-K. 32 (1987) 139
Hwang, S.-T., see Li, D. 37 (1988) 267
Hwang, S.-T., see Radovanovic, P. 48 (1990) 55
Hwang, S.-T., see Seok, D.R. 27 (1986) 1
Hwang, S.-T., see Seok, D.R. 33 (1987) 71
Hwang, S.-T., see Kothe, K.D. 46 (1989) 261

I

Ibañez, J.A., Forte, J., Hernandez, A. and Tejerina, F.
Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45
Ibañez, J.A., see Hernandez, A. 27 (1986) 131
Ichiraku, Y., Stern, S.A. and Nakagawa, T.
An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5
Idol, W.K. and Anderson, J.L.
Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269
Idrissi, N., see Guizard, C. 41 (1989) 127
Ihm, S.-K., Jeong, Y.-H. and Won, Y.-S.
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. I. Batch test of a mixer–settler 32 (1987) 31
Ihm, S.-K., see Jeong, Y.-H. 32 (1987) 47
Ihm, S.-K., Lee, H.-Y. and Lee, D.-H.
Kinetic study of the extraction of copper(II) by di(2-ethylhexyl)phosphoric acid in a Lewis-type cell 37 (1988) 181
Iijima, M., see Hirai, T. 44 (1989) 233
Iijima, T., see Nakanishi, T. 26 (1986) 263
Iijima, T., see Petropoulos, J.H. 38 (1988) 39
Iio, K., see Hiratani, K. 35 (1987) 91
Ikeda, I., Yamazaki, H., Konishi, T. and Okahara, M.
Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113
Ikemoto, I., see Toi, K. 41 (1989) 37
Ilias, S. and Govind, R.
Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125
Imai, Y.
Membrane transport system modeled by network thermodynamics 41 (1989) 3
Imai, Y., see Miyamoto, M. 41 (1989) 377
Imai, Y., Yoshida, H., Miyamoto, M., Nakahari, T. and Fujiwara, H.
Network synthesis of the epithelial transport system 41 (1989) 393
Imanishi, Y., see Kono, K. 50 (1990) 85
Imanishi, Y., see Tsuchida, T. 45 (1989) 155
Inagaki, N., Kobayashi, N. and Matsushima, M.
Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85
Inagaki, N. and Katsuoka, H.
Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297
Inagaki, N. and Ohkubo, J.
Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63
Inoue, H., see Behbahani, H.F. 47 (1989) 131
Inoue, H., see Okubo, T. 42 (1989) 109
Iorio, G., see Catapano, G. 35 (1988) 325
Iorio, G., see Drioli, E. 27 (1986) 253
Irie, J., see Nakashio, F. 38 (1988) 249
Irwin, K.J., Barnett, S.M. and Freeman, D.L.
Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79
Isayama, M., see Hirotsu, T. 45 (1989) 137
Ishida, H., see Morita, Z. 46 (1989) 283
Ishida, H., see Morita, Z. 46 (1989) 299
Islam, M.A., see Dimov, A. 50 (1990) 97

Isono, Y., Ito, H., Hirahara, K., Fujimoto, T. and Miyaki, Y.
Weak acid–strong base type charge-mosaic membrane. I. Carboxylic acid–quaternary amine system 43 (1989) 205
Ito, H., see Isono, Y. 43 (1989) 205
Ito, K., see Kaibara, K. 41 (1989) 187
Ito, N., see Kimura, J. 43 (1989) 291
Ito, T., see Toi, K. 41 (1989) 37
Itoh, H., Yoshizumi, T. and Saeki, M.
Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155
Itoh, N., see Haraya, K. 41 (1989) 23
Ivory, C.F., see Gallagher, P.M. 29 (1986) 49
Iwamoto, K., see Lee, Y.T. 42 (1989) 169
Iwamoto, K., see Lee, Y.T. 49 (1990) 85
Iwamoto, M., see Kawakami, M. 30 (1987) 105
Iwata, H. and Matsuda, T.
Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185
Izatt, R.M., Bruening, R.L., Cho, M.H., Geng, W., Lamb, J.D. and Christensen, J.J.
The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169
Izatt, R.M., Bruening, R.L., Clark, G.A., Lamb, J.D. and Christensen, J.J.
Effect of co-anion on DC18C6-mediated Tl^+ transport through an emulsion liquid mebrane 28 (1986) 77
Izatt, R.M., Jones, M.B., Lamb, J.D., Bradshaw, J.S. and Christensen, J.J.
Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241
Izatt, R.M., LindH, G.C., Clark, G.A., Nakatsuji, Y., Bradshaw, J.S., Lamb, J.D. and Christensen, J.J.
Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1
Izatt, R.M., McBride, Jr., D.W., Brown, P.R., Lamb, J.D. and Christensen, J.J.
The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69
Izatt, R.M., Roper, D.K., Bruening, R.L. and Lamb, J.D.
Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73
Izatt, R.M., see Lamb, J.D. 37 (1988) 13
Izatt, R.M., see Zhu, C.Y. 50 (1990) 319
Izuo, R., see Sata, T. 45 (1989) 197
Izuo, R., see Sata, T. 45 (1989) 209

J

Jackman, D.C., see Yau, S.-L. 37 (1988) 27
Jackman, D.C., Thomas, C.A., Rillema, D.P., Yau, S.-L. and Callahan, R.W.
A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213
Jackman, D.C., Yau, S.-L., Daignault, L.G. and Rillema, D.P.
A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109
Jaffrin, M.Y.
Innovative processes for membrane plasma separation 44 (1989) 115
Jagodzinski, J.A., see Reineke, C.E. 32 (1987) 207
Jagur-Grodzinski, J., Goldman, M. and Levin, G.
Changes in the permeability of membranes due to their decompression during permeation 43 (1989) 277
Jain, A.K., Tewari, R.K. and Srivastava, R.K.
Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195
Jain, R. and Schultz, J.S.
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313
Jans, A.W.H., see Siegel, G. 41 (1989) 353
Jeong, Y.-H., Ihm, S.-K. and Won, Y.-S.
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47
Jeong, Y.-H., see Ihm, S.-K. 32 (1987) 31
Jia, L., see Chern, R.T. 35 (1987) 103
Jia, L., see Chern, R.T. 48 (1990) 333
Jiang, Y.-S., see Vieth, W.R. 38 (1988) 1
Johnson, B.M., Baker, R.W., Matson, S.L., Smith, K.L., Roman, I.C., Tuttle, M.E. and Lonsdale, H.K.

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31
Johnson, R.L., see Mercurio-Cason, M.A. 27 (1986) 31
Jones, M.B., see Izatt, R.M. 26 (1986) 241
Jonsson, G., see Reali, M. 48 (1990) 181
Jordan, S.M., Koros, W.J. and Beasley, J.K. Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103
Jordan, S.M., Koros, W.J. and Fleming, G.K. The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191
Juang, R.-S., see Huang, T.-C. 31 (1987) 209
Julbe, A., see Larbot, A. 44 (1989) 289

K

Kafarski, P., see Bryjak, M. 37 (1988) 287
Kaga, T., see Saito, K. 43 (1989) 131
Kagawa, S., see Kawakami, M. 30 (1987) 105
Kagawa, Y., Ohta, S., Yohda, M., Hamamoto, T. and Hirata, H. Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237
Kagramanov, G.G., see Dytnerskii, Y.I. 41 (1989) 49
Kaibara, K., Ito, K., Kimizuka, H., Miyakawa, K. and Kaneshina, S. Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187
Kaibara, K., Nagata, Y., Kimotsuki, T. and Kimizuka, H. Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37
Kajiyama, T., Kikuchi, H. and Shinkai, S. Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243
Kamaya, M., see Tasaka, M. 38 (1988) 27
Kamaya, M., see Tasaka, M. 38 (1988) 175
Kamm, R.D., see Ross Ethier, C. 43 (1989) 19
Kamo, N., Demura, M. and Kobatake, Y. Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233
Kamo, N., see Kurosawa, S. 46 (1989) 157
Kanellopoulos, N.K. and Petrou, J.K. Relative permeability of parallel and serial capillary models with various radius distributions 35 (1987) 21
Kanellopoulos, N.K. and Petrou, J.K. Relative gas permeability of capillary networks with various size distributions 37 (1988) 1
Kaneshina, S., see Kaibara, K. 41 (1989) 187
Kang, S.G., see Seok, D.R. 27 (1986) 1
Kang, S.G., see Seok, D.R. 33 (1987) 71
Kao, Y.-K. A parametric study of recycle membrane separators 39 (1988) 143
Kao, Y.-K., Chen, S. and Hwang, S.-T. Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139
Kao, Y.-K., see Chen, S. 26 (1986) 143
Kao, Y.-K., see Yan, Z. 42 (1989) 147
Kao, Y.-K., see Kothe, K.D. 46 (1989) 261
Karakelle, M. and Zdrahala, R.J. Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305
Karube, I., see Gotoh, M. 41 (1989) 291
Karube, I., see Muramatsu, H. 41 (1989) 281
Karube, I., see Ohashi, E. 49 (1990) 95
Karyagin, V.A., see Kocherginsky, N.M. 30 (1987) 39
Kashiwagi, T., Okabe, K. and Okita, K. Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353
Kasting, G.B., Merritt, E.W. and Keister, J.C. An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137
Kasting, G.B., see Keister, J.C. 29 (1986) 155
Kasting, G.B., see Slough, C.L. 35 (1988) 161
Kataoka, T., Nishiki, T., Kimura, S. and Tomioka, Y. Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67
Kataoka, T., Nishiki, T. and Kimura, S. Phenol permeation through liquid surfactant membrane–permeation model and effective diffusivity 41 (1989) 197
Katsuoka, H., see Inagaki, N. 34 (1987) 297

Katz, M.G., see Mey-Marom, A. 27 (1986) 119
Kawakami, M., Tateishi, M., Iwamoto, M. and Kagawa, S.
Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105
Kawakami, Y. and Sugisaka, T.
Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189
Kawasaki, T., see Nakamura, M. 36 (1988) 343
Kedem, O.
The role of coupling in pervaporation 47 (1989) 277
Kedem, O., see Eyal, A. 38 (1988) 101
Keister, J.C.
Total mass transport through a nonhomogeneous membrane 29 (1986) 333
Keister, J.C.
An experimental modeling method for the analysis of diffusion through thin membranes 35 (1987) 73
Keister, J.C., see Kasting, G.B. 35 (1988) 137
Keister, J.C., see Wu, X. 50 (1990) 57
Keister, J.C. and Kasting, G.B.
Ionic mass transport through a homogeneous membrane in the presence of a uniform electric field 29 (1986) 155
Keizer, K., see Uhlhorn, R.J.R. 46 (1989) 225
Keizer, K., Uhlhorn, R.J.R., Van Vuren, R.J. and Burggraaf, A.J.
Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285
Kelley, S.S., see Puleo, A.C. 47 (1989) 301
Kelly, J.M., see Michas, A. 29 (1986) 239
Kermode, R.I., see Bhattacharyya, D. 48 (1990) 231
Kesting, R.E., see Fritzsche, A.K. 46 (1989) 135
Keurentjes, J.T.F., Harbrecht, J.G., Brinkman, D., Hanemaaijer, J.H., Cohen Stuart, M.A. and Van 't Riet, K.
Hydrophobicity measurements of microfiltration and ultrafiltration membranes 47 (1989) 333
Khan, A.A., see Raghava Rao, J. 46 (1989) 215
Khan, A.J., see Baker, R.W. 31 (1987) 259
Khan, H.R., see Arif, H. 46 (1989) 203
Kiani, A., see Prasad, R. 26 (1986) 79
Kikkawa, M., see Sugiura, M. 42 (1989) 47
Kikuchi, H., see Kajiyama, T. 36 (1988) 243
Kim, J.-I. and Stroeve, P.
Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99
Kim, J.-I. and Stroeve, P.
Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37
Kim, J.-J., see Kim, S.-S. 37 (1988) 113
Kim, J.T. and Anderson, J.L.
Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163
Kim, K.J., Fane, A.G. and Fell, C.J.D.
The effect of Langmuir–Blodgett layer pretreatment on the performance of ultrafiltration membranes 43 (1989) 187
Kim, S.-S., Cha, J.-S., Kim, J.-J. and Kim, U.-Y.
Morphological studies of cellulose acetate hollow fiber membranes 37 (1988) 113
Kim, T.-H., Koros, W.J. and Husk, G.R.
Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43
Kim, T.-H., Koros, W.J., Husk, G.R. and O'Brien, K.C.
Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45
Kim, U.-Y., see Kim, S.-S. 37 (1988) 113
Kimizuka, H., see Hirata, Y. 41 (1989) 177
Kimizuka, H., see Kaibara, K. 29 (1986) 37
Kimizuka, H., see Kaibara, K. 41 (1989) 187
Kimizuka, H., see Yamauchi, A. 32 (1987) 281
Kimizuka, H., see Yamauchi, A. 34 (1987) 33
Kimizuka, H., see Yang, W. 31 (1987) 109
Kimmerle, K., Bell, C.M., Gudernatsch, W. and Chmiel, H.
Solvent recovery from air 36 (1988) 477
Kimmerle, K., see Gudernatsch, W. 36 (1988) 331
Kimotsuki, T., see Kaibara, K. 29 (1986) 37
Kimura, J., Saito, A., Ito, N., Nakamoto, S. and Kuriyama, T.
Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291
Kimura, S., Nakao, S.-I. and Shimatani, S.-I.
Transport phenomena in membrane distillation 33 (1987) 285
Kimura, S., see Kataoka, T. 41 (1989) 197
Kimura, S., see Kataoka, T. 46 (1989) 67
Kimura, S., see Kono, K. 50 (1990) 85
Kimura, S., see Nakao, S.-I. 30 (1987) 273
Kimura, S., see Tsuchida, T. 45 (1989) 155
Kimura, S.G., see Matson, S.L. 29 (1986) 79
Kimura, S.G. and Browall, W.R.
Membrane oxygen enrichment. I. Demonstration of membrane oxygen enrichment for natural gas comubstion 29 (1986) 69
Kimura, Y., see Petropoulos, J.H. 38 (1988) 39
King, G.A., see Goosen, M.F.A. 41 (1989) 323

Kingdon, R.S., see Bowen, W.R. 40 (1989) 219
Kinne, R., see Siegel, G. 41 (1989) 353
Kirch, M., see Bacon, E. 32 (1987) 159
Kirkköprü-Dindi, A. and Noble, R.D.
Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13
Kishida, M., see Yoshikawa, M. 47 (1989) 53
Kishihara, S., Tamaki, H., Fujii, S. and Komoto, M.
Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103
Kishimoto, H., see Yonese, M. 26 (1986) 179
Kita, H., see Tanaka, K. 47 (1989) 203
Kiyono, R., see Sekiguchi, O. 48 (1990) 309
Kiyono, R., see Tasaka, M. 48 (1990) 91
Klech, C.M. and Simonelli, A.P.
Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87
Klein, E., see Ward, R.A. 33 (1987) 97
Klein, L.C. and Gallagher, D.
Pore structures of sol–gel silica membranes 39 (1988) 213
Knierim, K.D. and Mason, E.A.
Heteroporous sieving membranes: Rigorous bounds on pore-size distributions and sieving curves 42 (1989) 87
Knight, K.F., Duggal, A., Shelden, R.A. and Thompson, E.V.
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31
Kobatake, Y., see Kamo, N. 27 (1986) 233
Kobatake, Y., see Kurosawa, S. 46 (1989) 157
Kobayashi, N., see Inagaki, N. 38 (1988) 85
Kobuchi, Y., Motomura, H., Noma, Y. and Hanada, F.
Application of ion exchange membranes to the recovery of acids by diffusion dialysis 27 (1986) 173
Kocherginsky, N.M., Goldfeld, M.G. and Osak, I.S.
Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85
Kocherginsky, N.M., Osak, I.S., Bromberg, L.E., Karyagin, V.A., Moshkovsky, Y.S. and Leskin, G.S.
The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39
Kochinke, F., see Von Baeyer, H. 36 (1988) 215
Kochinke, F. and Von Baeyer, H.
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101
Kochkodan, V.M., see Tsapiuk, E.A. 47 (1989) 107
Kochkodan, V.M., see Tsapiuk, E.A. 48 (1990) 1
Kokufuta, E. and Nobusawa, M.
Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141
Komiyama, J., see Nakanishi, T. 26 (1986) 263
Komiyama, J., see Nakanishi, T. 32 (1987) 69
Komiyama, J., see Nakanishi, T. 47 (1989) 67
Komiyama, J., see Zhang, W.-Z. 31 (1987) 147
Komiyama, J., see Zhang, W.-Z. 35 (1988) 311
Komiyama, J., see Zhang, W.-Z. 40 (1989) 343
Komiyama, J., see Zhang, W.-Z. 42 (1989) 303
Komori, K., see Matsuyama, H. 47 (1989) 217
Komoto, M., see Kishihara, S. 41 (1989) 103
Kondo, K., see Nakashio, F. 38 (1988) 249
Konishi, T., see Ikeda, I. 46 (1989) 113
Konno, M., see Sugawara, S. 43 (1989) 313
Konno, M., see Sugawara, S. 44 (1989) 151
Konno, M., Shindo, M., Sugawara, S. and Saito, S.
A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193
Kono, K., Kimura, S. and Imanishi, Y.
Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85
Koros, W.J., see Barbari, T.A. 42 (1989) 69
Koros, W.J., see Coleman, M.R. 50 (1990) 285
Koros, W.J., see Hellums, M.W. 46 (1989) 93
Koros, W.J., see Jordan, S.M. 30 (1987) 191
Koros, W.J., see Jordan, S.M. 43 (1989) 103
Koros, W.J., see Kim, T.-H. 46 (1989) 43
Koros, W.J., see Kim, T.H. 37 (1988) 45
Koros, W.J., see O'Brien, K.C. 29 (1986) 229
Koros, W.J., see O'Brien, K.C. 35 (1988) 217
Koter, S., see Narębska, A. 30 (1987) 125
Koter, S., see Narębska, A. 30 (1987) 141
Kothe, K.D., Chen, S., Kao, Y.K. and Hwang, S.T.
A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Kovalenko, N.F., see Dytnerskii, Y.I. 41 (1989) 49
Kramer, P.W., Yeh, Y.-S. and Yasuda, H.
Low temperature plasma for the preparation of separation membranes 46 (1989) 1
Krantz, W.B., Ray, R.J., Sani, R.L. and Gleason, K.J.
Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11
Kreuz, K.L., see Bartels, C.R. 32 (1987) 291
Krishna, R., Goswami, A.N. and Sharma, A.
Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141
Krishna, R., see Sharma, A. 32 (1987) 19
Krishna, R., see Sharma, A. 40 (1989) 329
Kroner, K.H., see Riesmeier, B. 34 (1987) 245
Kroner, K.H. and Nissinen, V.
Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85
Krovvidi, K.R., see Lee, G.-T. 47 (1989) 183
Ktari, T. and Auclair, B.
Simplified flux equation in Donnan dialysis 32 (1987) 251
Kucera-Gienger, J., see Ray, R.J. 28 (1986) 87
Kůdela, V., Schwarz, H.-H. and Richau, K.
Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39
Kujawski, W., see Narębska, A. 30 (1987) 125
Kula, M.-R., see Papamichael, N. 30 (1987) 259
Kula, M.-R., see Riesmeier, B. 34 (1987) 245
Kulintsov, P.J., see Bobreshova, O.V. 48 (1990) 221
Kulkarni, M.G., see Vyavahare, N.R. 49 (1990) 207
Kumar, S., see Blokhra, R.L. 43 (1989) 31
Kumazawa, E.S.H. and Xu, P.
Some considerations on the mechanism of gas transport in glassy polymer films 35 (1987) 117
Kumazawa, H., see Sada, E. 37 (1988) 165
Kumazawa, H., see Sada, E. 39 (1988) 89
Kunioka, M., see Nakanishi, T. 32 (1987) 69
Kuriyama, T., see Kimura, J. 43 (1989) 291
Kuroda, T., see Pinnau, I. 37 (1988) 81
Kurosaki, R., see Yamauchi, A. 32 (1987) 281
Kurosawa, S., Kamo, N., Kobatake, Y. and Toyashima, I.
Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157
Kuroyanagi, Y., see Seno, M. 27 (1986) 241
Kusuki, Y., see Tanaka, K. 47 (1989) 203
Kusumoto, K., see Mizutani, Y. 42 (1989) 233

L

Laatikainen, M. and Lindström, M.
Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127
Lachapelle, E.D., see Babcock, W.C. 26 (1986) 303
Lafaille, J.-P., see Aimar, P. 38 (1988) 203
Lajous-Petter, A., see Von Baeyer, H. 36 (1988) 215
Lamb, J.D., Bruening, R.L., Izatt, R.M., Hirashima, Y., Tse, P.-K. and Christensen, J.J.
Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13
Lamb, J.D., see Izatt, R.M. 26 (1986) 241
Lamb, J.D., see Izatt, R.M. 28 (1986) 69
Lamb, J.D., see Izatt, R.M. 28 (1986) 77
Lamb, J.D., see Izatt, R.M. 31 (1987) 1
Lamb, J.D., see Izatt, R.M. 33 (1987) 169
Lamb, J.D., see Izatt, R.M. 45 (1989) 73
La Neave, C., see Pannell, K.H. 32 (1987) 83
Langer, P., see Schnabel, R. 36 (1988) 55
Larbot, A., Fabre, J.P., Guizard, C. and Cot, L.
Inorganic membranes obtained by sol–gel techniques 39 (1988) 203
Larbot, A., Julbe, A., Guizard, C. and Cot, L.
Silica membranes by the sol–gel process 44 (1989) 289
Larbot, A., see Guizard, C. 41 (1989) 127
Larter, R.
Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165
Laschewsky, A., see Cackovic, H. 26 (1986) 63
Lasic, D.D. and Martin, F.J.
On the mechanism of vesicle formation 50 (1990) 215
Le, M.S. and Gollan, K.L.
Fouling of microporous membranes in biological applications 40 (1989) 231
Ledjeff, K., see Reiner, A. 36 (1988) 535
Lee, C.-J., see Chang, Y.-L. 39 (1988) 99
Lee, C.-L., Chapman, H.L., Cifuentes, M.E., Lee, K.M., Merrill, L.D., Ulman, K.L. and Venkataraman, K.
Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55
Lee, C.H., see Lipp, P. 36 (1988) 161

Lee, C.K. and Hong, J.
Characterization of electric charges in microporous membranes 39 (1988) 79
Lee, G.-T., Krovvidi, K.R. and Greenberg, D.B.
Pervaporation of trace chlorinated organics from water through irradiated polyethylene membrane 47 (1989) 183
Lee, K.M., see Lee, C.-L. 38 (1988) 55
Lee, S.Y., see Donohue, M.D. 42 (1989) 197
Lee, Y.-T., see Majumdar, S. 43 (1989) 259
Lee, Y.M., Bourgeois, D. and Belfort, G.
Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161
Lee, Y.T., Iwamoto, K., Sekimoto, H. and Seno, M.
Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169
Lee, Y.T., Iwamoto, K. and Seno, M.
Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85
Leeper, S.A. and Tsao, G.T.
Membrane separations in ethanol recovery: an analysis of two applications of hyperfiltration 30 (1987) 289
Legault, F., see Guizard, C. 41 (1989) 127
Lejczak, B., see Bryjak, M. 37 (1988) 287
Le Parlouer, P., see Zeman, L. 32 (1987) 329
Le Rose, R., see Nicodemo, L. 43 (1989) 177
Leroy, M.J.F., see Tromp, M. 38 (1988) 295
Leskin, G.S., see Kocherginsky, N.M. 30 (1987) 39
Leszko, M. and Nahlik, E.
Separation of an acid and its salt by dialysis through ionic epoxide membranes 31 (1987) 177
Levin, G., see Jagur-Grodzinski, J. 43 (1989) 277
Lewandowski, J.J., see Malchesky, P.S. 44 (1989) 55
Leypoldt, J.K.
Determining pore size distributions of ultrafiltration membranes by solute sieving. Mathematical limitations 31 (1987) 289
Li, D., Seok, D.R. and Hwang, S.-T.
Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267
Li, N.N., see Gu, Z.M. 26 (1986) 129
Lim, S.K., Galland, D., Pineri, M. and Coey, J.M.D.
Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171
Lin, D.J., see Neel, J. 27 (1986) 217
Lin, Y.-K., see Huang, T.-C. 34 (1987) 127
Lin, Y.-K., see Huang, T.-C. 37 (1988) 131
LindH, G.C., see Izatt, R.M. 31 (1987) 1
Lindheimer, A. and Gavach, C.
Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125
Lindman, B., see Siegel, G. 41 (1989) 353
Lindström, M., see Laatikainen, M. 29 (1986) 127
Ling, H.-C., see Vrentas, J.S. 40 (1989) 101
Ling-Ling, S.W., see Shu-Sen, S.W. 44 (1989) 245
Lipp, P., Lee, C.H., Fane, A.G. and Fell, C.J.D.
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161
Liu, C.-P.A. and Neogi, P.
Sorption of benzene and n-hexane in polyethylene 35 (1988) 207
Liu, Z.-Z., see Cabasso, I. 28 (1986) 109
Liu, Z.Z., see Acharya, H.R. 37 (1988) 205
Lloyd, D.R., see Thiel, S.W. 37 (1988) 233
Lloyd, D.R., see Thiel, S.W. 42 (1989) 285
Lloyd, D.R., see Thiel, S.W. 50 (1990) 131
Loh, I.-H., Moody, R.A. and Huang, J.C.
Electrically conductive membranes: synthesis and applications 50 (1990) 31
Loiacono, O., Drioli, E. and Molinari, R.
Metal ion separation and concentration with supported liquid membranes 28 (1986) 123
Longhi, P., Mussini, P.R., Mussini, T. and Rondinini, S.
Evaluating membrane cell e.m.f.'s from different schemes of integration of the relevant Nernstian equations 34 (1987) 345
Lonsdale, H.K.
The evolution of ultrathin synthetic membranes 33 (1987) 121
Lonsdale, H.K., see Baker, R.W. 31 (1987) 15
Lonsdale, H.K., see Johnson, B.M. 31 (1987) 31
Lonsdale, H.K., see Matson, S.L. 31 (1987) 69
López, F. García, see Mengual, J.I. 26 (1986) 211
Lopez, J.L., Matson, S.L., Marchese, J. and Quinn, J.A.
Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301
Lopour, P., see Schauer, J. 29 (1986) 169
Lorenz, K., see Mika, A.M. 41 (1989) 163
Luchini, P. and Pozzi, A.
Unsteady-state behaviour of enzyme membrane reactors with substrate rejection 27 (1986) 263
Lysaght, M.J., see Stromberg, R.R. 44 (1989) 131
Lysaght, M.J. and Farrell, P.C.
Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

M

Machhammer, O., see Rautenbach, R. 36 (1988) 425

Maeda, Y., see Paul, D.R. 40 (1989) 109

Maeda, Y. and Paul, D.R.
Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

Mafé, S., Aguilella, V.M. and Pellicer, J.
Film control and membrane control in charged membranes 36 (1988) 497

Mafé, S., see Aguilella, V.M. 28 (1986) 139

Mafé, S., see Pellicer, J. 29 (1986) 117

Mahdi, S.Q., see Arif, H. 46 (1989) 203

Majumdar, A. and Stroeve, P.
Diffusion of local anesthetics through liquid membranes 26 (1986) 329

Majumdar, S., Guha, A.K., Lee, Y.-T. and Sirkar, K.K.
A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Makenzie, T., see Cabasso, I. 28 (1986) 109

Malchesky, P.S., Horiuchi, T., Lewandowski, J.J. and Nosè, Y.
Membrane plasma separation and the on-line treatment of plasma by membranes 44 (1989) 55

Mameri, N., see Poyen, S. 43 (1989) 47

Manigley, C., see Sára, M. 36 (1988) 179

Marchese, J., see Lopez, J.L. 27 (1986) 301

Marcotte, N., see Goosen, M.F.A. 41 (1989) 323

Marr, R., see Bart, H.J. 36 (1988) 413

Marr, R., see Draxler, J. 38 (1988) 281

Martin, F.J., see Lasic, D.D. 50 (1990) 215

Martín-Salas, A., see Hernández, A. 27 (1986) 131

Martinez, L., Gigosos, M.A., Hernandez, A. and Tejerina, F.
Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Martinez, L., see Martínez-Villa, F. 36 (1988) 31

Martínez-Villa, F., Arribas, J.I. and Tejerina, F.
Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Martínez-Villa, F., Martinez, L., Arribas, J.I. and Tejerina, F.
Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Martínez-Villa, F., see Hernandez, A. 27 (1986) 131

Mashelkar, R.A., see Vyavahare, N.R. 49 (1990) 207

Mason, E.A., see Del Castillo, L.F. 28 (1986) 229

Mason, E.A., see Knierim, K.D. 42 (1989) 87

Massé, P., see Choe, T.B. 26 (1986) 1

Massé, P., see Choe, T.B. 26 (1986) 17

Masuda, T., Takatsuka, M., Tang, B.-Z. and Higashimura, T.
Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

Mathiowitz, E. and Cohen, M.D.
Polyamide microcapsules for controlled release. I. Characterization of the membranes 40 (1989) 1

Mathiowitz, E. and Cohen, M.D.
Polyamide microcapsules for controlled release. II. Release characteristics of the microcapsules 40 (1989) 27

Mathiowitz, E. and Cohen, M.D.
Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Mathiowitz, E. and Cohen, M.D.
Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

Mathiowitz, E. and Cohen, M.D.
Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Matson, S.L., see Johnson, B.M. 31 (1987) 31

Matson, S.L., see Lopez, J.L. 27 (1986) 301

Matson, S.L., Ward, W.J., Kimura, S.G. and Browall, W.R.
Membrane oxygen enrichment. II. Economic assessment 29 (1986) 79

Matson, S.L. and Lonsdale, H.K.
Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

Matsubara, T., see Sekiguchi, O. 48 (1990) 309

Matsubara, T., see Tasaka, M. 48 (1990) 91

Matsuda, T., see Iwata, H. 38 (1988) 185

Matsumoto, K., see Niwa, M. 39 (1988) 301

Matsumoto, M., see Nakashio, F. 38 (1988) 249

Matsumoto, T., see Nakamae, K. 29 (1986) 267

Matsushima, M., see Inagaki, N. 38 (1988) 85

Matsuura, T., see Chen, Y. 48 (1990) 203

Matsuyama, H., Komori, K. and Teramoto, M.
Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Matsuyama, H., see Teramoto, M. 45 (1989) 115
Matsuyama, H., see Teramoto, M. 50 (1990) 269
McAtee, R.E., see Allen, C.A. 33 (1987) 181
McAtee, R.E., see McCaffrey, R.R. 28 (1986) 47
McBride, Jr., D.W., see Izatt, R.M. 28 (1986) 69
McCaffrey, R.R., McAtee, R.E., Grey, A.E., Allen, C.A., Cummings, D.G. and Appelhans, A.D.
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47
McCaffrey, R.R., see Allen, C.A. 33 (1987) 181
McCaffrey, R.R., see Allen, C.A. 43 (1989) 217
McCandless, F.P.
Iterative solution of multicomponent permeator model equations 48 (1990) 115
McCandless, F.P. and Downs, W.B.
Separation of C_8 aromatic isomers by pervaporation through commercial polymer films 30 (1987) 111
McDonogh, R.M., Fane, A.G. and Fell, C.J.D.
Charge effects in the cross-flow filtration of colloids and particulates 43 (1989) 69
McDonogh, R.M., Fell, C.J.D. and Fane, A.G.
Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321
McHugh, A.J., see Yilmaz, L. 28 (1986) 287
McHugh, A.J. and Yilmaz, L.
Further comments on the diffusion equations for membrane formation 43 (1989) 319
McKnight, C.A., see Goosen, M.F.A. 41 (1989) 323
Meares, P., see Davidson, C.J. 36 (1988) 511
Mecea, V., see Mercea, P. 35 (1988) 291
Medvedev, M.I., see Tsapiuk, E.A. 47 (1989) 107
Mehdizadeh, H. and Dickson, J.M.
Theoretical modification of the surface force–pore flow model for reverse osmosis transport 42 (1989) 119
Meldon, J.H., see Angelopoulos, A.P. 34 (1987) 317
Memoli, A., see Alhaique, F. 45 (1989) 55
Mengual, J.I., García López, F. and Fernández-Pineda, C.
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211
Mercea, P., Mureşan, L., Mecea, V., Silipaş, D. and Ursu, I.
Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291
Mercurio-Cason, M.A., Dasgupta, P.K., Blakely, D.W. and Johnson, R.L.
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31
Merigiola, M., see Fabiani, C. 30 (1987) 97
Merrill, L.D., see Lee, C.-L. 38 (1988) 55
Merritt, E.W., see Kasting, G.B. 35 (1988) 137
Mey-Marom, A. and Katz, M.G.
Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119
Mey-Marom, A. and Shkolnik, S.
Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321
Michaels, A.S.
Barrier membranes; concepts revisited 43 (1989)
Michas, A., Kelly, J.M., Durand, R., Pineri, M. and Coey, J.M.D.
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239
Mika, A.M., Lorenz, K. and Szczurek, A.
Photoreduction of methylene blue in Nafion membrane 41 (1989) 163
Mikhail, Y.M., see Tison, R.P. 45 (1989) 65
Milinari, R., Drioli, E. and Barbieri, G.
Membrane reactor in fatty acid production 36 (1988) 525
Millet, P.
Determination of self-diffusion coefficients from conductivity measurements in perfluorinated ionomer membranes 50 (1990) 325
Mimura, R., see Sakai, K. 32 (1987) 3
Mineshima, M., see Agishi, T. 44 (1989) 47
Minhas, B.S., see Donohue, M.D. 42 (1989) 197
Minneci, P.A. and Paulson, D.J.
Molecularly-bonded metal microfiltration membrane 39 (1988) 273
Miola, L., see Allen, M.T. 33 (1987) 201
Miquel, A., see Schock, G. 41 (1989) 55
Misawa, K., see Arisawa, J. 32 (1987) 223
Misawa, K., see Arisawa, J. 35 (1988) 231
Misawa, K., see Arisawa, J. 42 (1989) 57
Mishra, A.K. and Bhattacharya, P.K.
Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83
Mishra, G., see Shukla, P.C. 26 (1986) 277
Mishra, G., see Shukla, P.C. 31 (1987) 157
Misra, B.M., see Prabhakar, S. 29 (1986) 143
Mita, D.G., see Pagliuca, N. 33 (1987) 1
Miyakawa, K., see Kaibara, K. 41 (1989) 187
Miyaki, Y., see Isono, Y. 43 (1989) 205

Miyamoto, M., Nakahari, T., Yoshida, H. and Imai, Y.
Electro-osmotic flow measurements 41 (1989) 377
Miyamoto, M., see Imai, Y. 41 (1989) 393
Miyamura, T., see Hirai, T. 44 (1989) 233
Miyano, T., see Chen, Y. 48 (1990) 203
Miyasaka, K., see Higa, M. 37 (1988) 251
Miyasaka, K., see Higa, M. 49 (1990) 145
Miyasaka, K., see Yokoyama, Y. 38 (1988) 223
Miyasaka, K., see Yokoyama, Y. 43 (1989) 165
Mizutani, Y.
Structure of ion exchange membranes 49 (1990) 121
Mizutani, Y., Kusumoto, K., Nishimura, M. and Asada, E.
Preparation of microporous membranes from cation exchange membranes 42 (1989) 233
Mizutani, Y., see Sata, T. 28 (1986) 151
Mohr, J.M., see Baker, R.W. 31 (1987) 259
Molinari, R., see Loiacono, O. 28 (1986) 123
Moody, R.A., see Loh, I.-H. 50 (1990) 31
Mora, J.C., see Psaume, R. 36 (1988) 373
Moretti, P., see Munari, S. 41 (1989) 69
Morita, Z., Ishida, H., Shimamoto, H., Weber, R. and Rys, P.
Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283
Morita, Z., Ishida, H., Shimamoto, H., Weber, R. and Rys, P.
Anion permeability of cellulosic membranes. Part 2. Effect of fixed groups on permeation of co-ions 46 (1989) 299
Moshkovsky, Y.S., see Kocherginsky, N.M. 30 (1987) 39
Motomura, H., see Kobuchi, Y. 27 (1986) 173
Muffato, F., see Zeni, M. 36 (1988) 277
Muhammed, M., see Fernandez, L. 27 (1986) 77
Mukherjee, R.N., see Chakravorty, B. 41 (1989) 155
Mulder, M.H.V., see Franken, A.C.M. 33 (1987) 315
Mulder, M.H.V., see Gebben, B. 46 (1989) 29
Mulder, M.H.V., see Te Hennepe, H.J.C. 35 (1987) 39
Müller, H.J., see Bart, H.J. 36 (1988) 413
Munari, S., Bottino, A., Moretti, P., Capannelli, G. and Becchi, I.
Permoporometric study on ultrafiltration membranes 41 (1989) 69
Münchmeyer, D., see Ehrfeld, W. 36 (1988) 67
Muramatsu, H., Tamiya, E. and Karube, I.
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281
Mureşan, L., see Mercea, P. 35 (1988) 291
Murphy, M.K., see Fritzsche, A.K. 46 (1989) 135
Muruganandam, N. and Paul, D.R.
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185
Mussini, P.R., see Longhi, P. 34 (1987) 345
Mussini, T., see Longhi, P. 34 (1987) 345

N

Nagata, Y., see Kaibara, K. 29 (1986) 37
Nahlik, E., see Leszko, M. 31 (1987) 177
Naitoh, A., see Sakai, K. 37 (1988) 101
Nakagaki, M., see Takagi, R. 27 (1986) 285
Nakagawa, T., see Higuchi, A. 32 (1987) 267
Nakagawa, T., see Ichiraku, Y. 34 (1987) 5
Nakahari, T., see Imai, Y. 41 (1989) 393
Nakahari, T., see Miyamoto, M. 41 (1989) 377
Nakamae, K., Fujimura, Y., Shimatani, S. and Matsumoto, T.
Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267
Nakamoto, S., see Kimura, J. 43 (1989) 291
Nakamura, A., see Tanaka, K. 47 (1989) 203
Nakamura, M., Samejima, S. and Kawasaki, T.
Liquid separation with fluorinated polymer membranes 36 (1988) 343
Nakanishi, T., Komiyama, J. and Iijima, T.
Salt permeation through cationic membranes with quaternary ammonium groups of different alkyl chain lengths 26 (1986) 263
Nakanishi, T., Kunioka, M., Dai, T., Satoh, M. and Komiyama, J.
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69
Nakanishi, T., Seike, T., Akiyama, T., Satoh, M. and Komiyama, J.
Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67
Nakano, M., see Takeuchi, H. 42 (1989) 183
Nakao, S.-I., Saitoh, F., Asakura, T., Toda, K. and Kimura, S.
Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273
Nakao, S.-I., see Kimura, S. 33 (1987) 285

Nakao, S., Wijmans, J.G. and Smolders, C.A.
Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165
Nakashio, F., Goto, M., Matsumoto, M., Irie, J. and Kondo, K.
Role of surfactants in the behavior of emulsion liquid membranes–development of new surfactants 38 (1988) 249
Nakatsuji, Y., see Izatt, R.M. 31 (1987) 1
Narasimhan, V., see Raghava Rao, J. 46 (1989) 215
Narębska, A., Kujawski, W. and Koter, S.
Irreversible thermodynamics of transport across charged membranes. Part II. Ion-water interactions in permeation of alkali 30 (1987) 125
Narębska, A. and Koter, S.
Irreversible thermodynamics of transport across charged membranes. Part III. Efficiency of energy conversion in separation processes with Nafion 120 membrane from phenomenological transport coefficients 30 (1987) 141
Neave, C. La, see Pannell, K.H. 32 (1987) 83
Nedyalkov, M., see Gavach, C. 45 (1989) 37
Néel, J., Nguyen, Q.T., Clement, R. and Lin, D.J.
Influence of downstream pressure on the pervaporation of water–tetrahydrofuran mixtures through a regenerated cellulose membrane (Cuprophan) 27 (1986) 217
Néel, J., see Ping, Z.H. 48 (1990) 297
Negishi, Y., see Niwa, M. 39 (1988) 301
Neogi, P., see Liu, C.-P.A. 35 (1988) 207
Neufeld, R.J., see Arbeloa, M. 29 (1986) 321
Neufeld, R.J., see Poncelet, D. 50 (1990) 249
Newton, J.M., see Fischel-Ghodsian, F. 48 (1990) 33
Nguyen, Q.T., see Néel, J. 27 (1986) 217
Nguyen, Q.T., see Ping, Z.H. 48 (1990) 297
Nguyen, T.Q.
Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165
Nguyen, T.Q. and Nobe, K.
Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11
Nicchia, M., see Vigo, F. 36 (1988) 187
Nicodemo, L., Bellucci, F., Le Rose, R. and Carfagna, C.
The unsteady-state measurement of polymer membrane permeability to dissolved oxygen 43 (1989) 177
Niemöller, A., Scholz, H., Götz, B. and Ellinghorst, G.
Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385
Nilsson, J.L.
Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147
Nilsson, J.L., see Dejmek, P. 40 (1989) 189
Nishigaki, M., see Sada, E. 37 (1988) 165
Nishiki, T., see Kataoka, T. 41 (1989) 197
Nishiki, T., see Kataoka, T. 46 (1989) 67
Nishimura, M., see Mizutani, Y. 42 (1989) 233
Nishizono, I., see Yamauchi, A. 34 (1987) 33
Nissinen, V., see Kroner, K.H. 36 (1988) 85
Nitsch, W., see Plucinski, P. 39 (1988) 43
Niwa, M., Ohya, H., Tanaka, Y., Yoshikawa, N., Matsumoto, K. and Negishi, Y.
Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301
Nobe, K., see Nguyen, T.Q. 30 (1987) 11
Noble, R.D.
Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207
Noble, R.D., see Kirkköprü-Dindi, A. 42 (1989) 13
Noble, R.D., see Way, J.D. 46 (1989) 309
Nobrega, R., De Balmann, H., Aimar, P. and Sanchez, V.
Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17
Nobrega, R., see De Balmann, H. 40 (1989) 311
Nobusawa, M., see Kokufuta, E. 48 (1990) 141
Nodera, A., see Zhang, W.-Z. 35 (1988) 311
Nolten, J.A.M., see Franken, A.C.M. 33 (1987) 315
Noma, Y., see Kobuchi, Y. 27 (1986) 173
Nosè, Y., see Malchesky, P.S. 44 (1989) 55
Nyström, M.
Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

O

Obata, K., see Haraya, K. 41 (1989) 23
O'Brien, K.C., Koros, W.J., Barbari, T.A. and Sanders, E.S.
A new technique for the measurement of

multicomponent gas transport through polymeric films 29 (1986) 229
O'Brien, K.C., see Kim, T.H. 37 (1988) 45
O'Brien, K.C., Koros, W.J. and Husk, G.R. Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217
Ogata, N., see Yoshikawa, M. 26 (1986) 51
Ogata, N., see Yoshikawa, M. 26 (1986) 107
Ogata, N., see Yoshikawa, M. 32 (1987) 235
Ogawa, Y., see Tasaka, M. 38 (1988) 27
Ogawa, Y., see Tasaka, M. 38 (1988) 175
O'Hara, P.A. and Bohrer, M.P. Supported liquid membranes for copper transport 44 (1989) 273
Ohashi, E., Tamiya, E. and Karube, I. A new enzymatic receptor to be used in a biosensor 49 (1990) 95
Ohashi, H., see Sakai, K. 32 (1987) 3
Ohkubo, J., see Inagaki, N. 27 (1986) 63
Ohta, M., see Osada, Y. 27 (1986) 327
Ohta, S., see Kagawa, Y. 41 (1989) 237
Ohya, H., see Niwa, M. 39 (1988) 301
Okabe, K., see Kashiwagi, T. 36 (1988) 353
Okahara, M., see Ikeda, I. 46 (1989) 113
Okamoto, J., see Saito, K. 34 (1987) 307
Okamoto, J., see Saito, K. 43 (1989) 131
Okamoto, K., see Tanaka, K. 47 (1989) 203
Okamoto, S., see Teramoto, M. 45 (1989) 115
Okazaki, M., see Tateishi, N. 41 (1989) 315
Okazaki, Y., see Yamauchi, A. 32 (1987) 281
Okita, K., see Kashiwagi, T. 36 (1988) 353
Okubo, T. and Inoue, H. Introduction of specific gas selectivity to porous glass membranes by treatment with tetraethoxysilane 42 (1989) 109
Okushita, H., see Shimidzu, T. 27 (1986) 349
Okushita, H., see Shimidzu, T. 39 (1988) 113
Olana, F., see Alhaique, F. 45 (1989) 55
Oldani, M. and Schock, G. Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243
Ollis, D.F., see Chau, P.C. 33 (1987) 51
Ölund, K., see Gekas, V. 37 (1988) 145
Osada, Y., Honda, K. and Ohta, M. Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327
Osak, I.S., see Kocherginsky, N.M. 30 (1987) 39
Osak, I.S., see Kocherginsky, N.M. 45 (1989) 85
Osseo-Asare, K., see Xue, T. 45 (1989) 261
Osseo-Asare, K. and Chaiko, D.J. Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215
Osseo-Asare, K. and Xue, T. Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5
Ozawa, K., see Sakai, K. 32 (1987) 3

P

Pagliuca, N., Bencivenga, U., Mita, D.G., Perna, G. and Gaeta, F.S. Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1
Pamboutzoglou, G., see Gavach, C. 45 (1989) 37
Pannell, K.H., Rico, E., La Neave, C., Rahimian, K., Amaya, A. and Arkles, B. Silacrown ionophores 32 (1987) 83
Papadokostaki, K., see Amarantos, S.G. 34 (1987) 207
Papamichael, N. and Kula, M.-R. A hydrodynamic study of the retention of polyethylene glycols by cellulose acetate membranes in the absence and presence of proteins 30 (1987) 259
Parlouer, P. Le, see Zeman, L. 32 (1987) 329
Passlack, J., see Staude, E. 28 (1986) 209
Paterson, R., see Coutts, D. 27 (1986) 275
Paterson, R. and Doran, P. A spray technique for the determination of membrane diffusion and distribution coefficients by the time-lag method: evaluated for electrolyte transport through charged and uncharged membranes 26 (1986) 289
Paterson, R. and Doran, P. A new method for determining membrane diffusion coefficients from their response to regular forced concentration waves 27 (1986) 105
Paul, D.R., see Barbari, T.A. 42 (1989) 69
Paul, D.R., see Chiou, J.S. 32 (1987) 195
Paul, D.R., see Chiou, J.S. 45 (1989) 167
Paul, D.R., see Hellums, M.W. 46 (1989) 93
Paul, D.R., see Maeda, Y. 30 (1987) 1
Paul, D.R., see Muruganandam, N. 34 (1987) 185
Paul, D.R., see Puleo, A.C. 47 (1989) 301

Paul, D.R. and Maeda, Y.
Response to comments by Vrentas, Duda and Ling 40 (1989) 109
Paul, H., Philipsen, C., Gerner, F.J. and Strathmann, H.
Removal of organic vapors from air by selective membrane permeation 36 (1988) 363
Paulson, D.J., see Minneci, P.A. 39 (1988) 273
Payne, P.A., see Watson, J.M. 49 (1990) 171
Pegoraro, M., Penati, A. and Zanderighi, L.
Polyurethane membrane for gas fractionation 27 (1986) 203
Peinemann, K.-V., Fink, K. and Witt, P.
Asymmetric polyetherimide membrane for helium separation 27 (1986) 215
Peinemann, K.-V., see Pinnau, I. 37 (1988) 81
Pellegrino, J., see Heaney, M.D. 47 (1989) 143
Pellicer, J., Aguilella, V.M. and Mafé, S.
Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117
Pellicer, J., see Aguilella, V.M. 28 (1986) 139
Pellicer, J., see Mafé, S. 36 (1988) 497
Penati, A., see Pegoraro, M. 27 (1986) 203
Peppas, N.A., see Brannon, M.L. 32 (1987) 125
Peppas, N.A. and Brannon-Peppas, L.
Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior 48 (1990) 281
Perna, G., see Pagliuca, N. 33 (1987) 1
Perry, D., Ward, W.J. and Cussler, E.L.
Unsteady diffusion in barrier membranes 44 (1989) 305
Petropoulos, J.H.
Heat of transport of dilute adsorbable gases in single pores and model porous media as a function of pore structure 29 (1986) 177
Petropoulos, J.H.
A note on the realistic estimation of experimental time lag errors 31 (1987) 103
Petropoulos, J.H.
Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79
Petropoulos, J.H., Kimura, Y. and Iijima, T.
Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39
Petropoulos, J.H., see Amarantos, S.G. 34 (1987) 207
Petropoulos, J.H. and Tsimboukis, D.G.
Boundary layer effects on membrane permeation rates 27 (1986) 359
Petrou, J.K., see Kanellopoulos, N.K. 35 (1987) 21
Petrou, J.K., see Kanellopoulos, N.K. 37 (1988) 1
Peusner, L.
Integration of membrane equations in the presence of sources and directional biases: on the consistent definition of kinetic potentials in diffusion–reaction–convection coupling and related transport problems 35 (1988) 271
Pfenning, D. and Woermann, D.
Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105
Pfenning, D. and Woermann, D.
Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions 48 (1990) 291
Pfenning, D.M., see Hoffmann, E. 34 (1987) 199
Philippsen, E., see Hoffmann, E. 34 (1987) 199
Philipsen, C., see Paul, H. 36 (1988) 363
Piculell, L., see Siegel, G. 41 (1989) 353
Pierson, J.S., see Dorson, W.J. 44 (1989) 35
Pineri, M., see Lim, S.K. 30 (1987) 171
Pineri, M., see Michas, A. 29 (1986) 239
Pineri, M., see Thomas, M. 46 (1989) 57
Ping, Z.H., Nguyen, Q.T., Clément, R. and Néel, J.
Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297
Pinnau, I., Wijmans, J.G., Blume, I., Kuroda, T. and Peinemann, K.-V.
Gas permeation through composite membranes 37 (1988) 81
Pintauro, P.N. and Verbrugge, M.W.
The electric-potential profile in ion-exchange membrane pores 44 (1989) 197
Plucinski, P. and Nitsch, W.
The calculation of permeation rates through supported liquid membranes based on the kinetics of liquid–liquid extraction 39 (1988) 43
Plucinski, P. and Szust, J.
An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261
Polissi, A., see Zeni, M. 36 (1988) 277
Poncelet, D., Poncelet de Smet, B. and Neufeld, R.J.
Nylon membrane formation in biocatalyst microencapsulation: physicochemical modelling 50 (1990) 249
Poncelet de Smet, B., see Poncelet, D. 50 (1990) 249

Pons, M.-N., see Vivier, H. 46 (1989) 81
Portala, J.-F., see Vivier, H. 46 (1989) 81
Portier, M., see Poyen, S. 43 (1989) 47
Pourcelly, G., see Gavach, C. 45 (1989) 37
Poyen, S., Bariou, B., Mameri, N., Portier, M. and Bergez, M.
Prediction of rejection coefficients in ultrafiltration 43 (1989) 47
Poyen, S., see Danes, F.E. 50 (1990) 177
Poźniak, G. and Trochimczuk, W.
Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55
Pozzi, A., see Luchini, P. 27 (1986) 263
Prabhakar, S. and Misra, B.M.
Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143
Prasad, B.G.S., see Raghava Rao, J. 46 (1989) 215
Prasad, R., Kiani, A., Bhave, R.R. and Sirkar, K.K.
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79
Prasad, R. and Sirkar, K.K.
Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235
Prasad, R. and Sirkar, K.K.
Hollow fiber solvent extraction: performances and design 50 (1990) 153
Pratt, J.R., see Stern, S.A. 49 (1990) 1
Prevost, M., see Tromp, M. 38 (1988) 295
Psaume, R., Aptel, P., Aurelle, Y., Mora, J.C. and Bersillon, J.L.
Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373
Puleo, A.C., Paul, D.R. and Kelley, S.S.
The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Q

Qin, R., Zander, A.K., Semmens, M.J. and Cussler, E.L.
Separating acetic acid from liquids 50 (1990) 51
Quinn, J.A., see Lopez, J.L. 27 (1986) 301
Quinn, J.A., see Stanley, T.J. 30 (1987) 243
Qutubuddin, S., see Wiencek, J. 45 (1989) 311

R

Rácz, I.G., see Van den Berg, G.B. 47 (1989) 25
Racz, I.G., see Van der Waal, M.J. 40 (1989) 243
Racz, I.G., see Van der Waal, M.J. 40 (1989) 261
Radovanovic, P., Thiel, S.W. and Hwang, S.-T.
Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane 48 (1990) 55
Raghava Rao, J., Prasad, B.G.S., Narasimhan, V., Ramasami, T., Shah, P.R. and Khan, A.A.
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215
Rahimian, K., see Pannell, K.H. 32 (1987) 83
Rakotoarisoa, H., see Rios, G.M. 34 (1987) 331
Rakotoarisoa, H., see Rios, G.M. 38 (1988) 147
Ramasami, T., see Raghava Rao, J. 46 (1989) 215
Rao, J. Raghava, Prasad, B.G.S., Narasimhan, V., Ramasami, T., Shah, P.R. and Khan, A.A.
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215
Raoult, E., Sarrazin, J. and Tallec, A.
Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23
Rastelli, E., see Zeni, M. 36 (1988) 277
Rautenbach, R., Herion, C., Franke, M., Asfour, A.-F.A., Bemquerer-Costa, A. and Bo, E.
Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445
Rautenbach, R. and Dahm, W.
Simplified calculation of gas-permeation hollow-fiber modules for the separation of binary mixtures 28 (1986) 319
Rautenbach, R. and Machhammer, O.
Modeling of liquid membrane separation processes 36 (1988) 425

Rautenbach, R. and Schock, G.
Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231
Rawat, B.S., see Sharma, A. 32 (1987) 19
Ray, R.J., Kucera-Gienger, J. and Retzlaff, S.
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87
Ray, R.J., see Krantz, W.B. 29 (1986) 11
Reali, M., Dassie, G. and Jonsson, G.
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181
Rechnitz, G.A., see Bush, D.L. 30 (1987) 313
Reddy, D., see Delaney, M.S. 49 (1990) 15
Reichley-Yinger, L., see Danesi, P.R. 27 (1986) 339
Reichley-Yinger, L., see Danesi, P.R. 29 (1986) 195
Reichley-Yinger, L., see Danesi, P.R. 31 (1987) 117
Reineke, C.E., Jagodzinski, J.A. and Denslow, K.R.
Highly water selective cellulosic polyelectrolyte membranes for the pervaporation of alcohol–water mixtures 32 (1987) 207
Reiner, A. and Ledjeff, K.
Anion exchange membranes consisting of poly(vinylpyridine) and poly(vinylbenzyl chloride) for Cr/Fe redox batteries 36 (1988) 535
Reinhardt, G.A., see Hauser, J. 47 (1989) 261
Reiss, H., see Selvey, C. 30 (1987) 75
Retzlaff, S., see Ray, R.J. 28 (1986) 87
Reuvers, A.J., Van den Berg, J.W.A. and Smolders, C.A.
Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45
Reuvers, A.J. and Smolders, C.A.
Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67
Rhim, J.-W. and Huang, R.Y.M.
On the prediction of separation factor and permeability in the separation of binary mixtures by pervaporation 46 (1989) 335
Richau, K., see Kůdela, V. 43 (1989) 39
Richau, K., see Schwarz, H.-H. 34 (1987) 283
Rickert, P.G., see Danesi, P.R. 31 (1987) 117
Rico, E., see Pannell, K.H. 32 (1987) 83
Riedinger, H. and Faul, W.
The focussing of membrane R&D on areas of commercial potential 36 (1988) 5
Rieke, P.C. and Vanderborgh, N.E.
Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313
Riesmeier, B., Kroner, K.H. and Kula, M.-R.
Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245
Riet, K. Van 't, see Fontyn, M. 36 (1988) 141
Riet, K. Van 't, see Keurentjes, J.T.F. 47 (1989) 333
Riet, K. Van 't, see Weldring, J.A.G. 38 (1988) 127
Rillema, D.P., see Jackman, D.C. 30 (1987) 213
Rillema, D.P., see Jackman, D.C. 34 (1987) 109
Rillema, D.P., see Yau, S.-L. 37 (1988) 27
Ringsdorf, H., see Cackovic, H. 26 (1986) 63
Rios, G.M., Rakotoarisoa, H. and Tarodo de la Fuente, B.
Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331
Rios, G.M., Rakotoarisoa, H. and Tarodo de la Fuente, B.
Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147
Ripperger, S., see Schneider, K. 39 (1988) 25
Ripperger, S., see Schulz, G. 40 (1989) 173
Rizvi, S.A. and Zaidi, S.B.
Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259
Robbertsen, T., see Hanemaaijer, J.H. 40 (1989) 199
Robertson, B.C. and Zydney, A.L.
Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287
Robertson, G.D., see Dulyea, L.M. 34 (1987) 87
Roco, M.C., see Bhattacharyya, D. 48 (1990) 231
Roman, I.C., see Baker, R.W. 31 (1987) 15
Roman, I.C., see Johnson, B.M. 31 (1987) 31
Romero, C.A. and Davis, R.H.
Global model of crossflow microfiltration based on hydrodynamic particle diffusion 39 (1988) 157
Rondinini, S., see Longhi, P. 34 (1987) 345
Ronner, J.A., Groot Wassink, S. and Smolders, C.A.
Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming

system by means of pulse-induced critical scattering (PICS) 42 (1989) 27
Roper, D.K., see Izatt, R.M. 45 (1989) 73
Rosa, M. De, see Drioli, E. 27 (1986) 253
Rose, R. Le, see Nicodemo, L. 43 (1989) 177
Rosi, A., see Bonincontro, A. 41 (1989) 345
Ross Ethier, C. and Kamm, R.D.
The hydrodynamic resistance of filter cakes 43 (1989) 19
Ruf, A., see Heinzelmann, W. 36 (1988) 79
Rys, P., see Morita, Z. 46 (1989) 283
Rys, P., see Morita, Z. 46 (1989) 299

S

Sabuni, H.A.M., see Bowen, W.R. 40 (1989) 219
Sada, E., Kumazawa, H., Xu, P. and Nishigaki, M.
Mechanism of gas permeation through glassy polymer films 37 (1988) 165
Sada, E., Kumazwa, H. and Xu, P.
Further considerations of the mechanism of gas diffusion in glassy polymer films 39 (1988) 89
Saeki, M., see Itoh, H. 27 (1986) 155
Sagoo, P., see Barrie, J.A. 43 (1989) 229
Saito, A., see Kimura, J. 43 (1989) 291
Saito, K., Kaga, T., Yamagishi, H., Furusaki, S., Sugo, T. and Okamoto, J.
Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131
Saito, K., Yamada, S., Furusaki, S., Sugo, T. and Okamoto, J.
Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307
Saito, S., see Konno, M. 37 (1988) 193
Saito, S., see Sugawara, S. 43 (1989) 313
Saito, S., see Sugawara, S. 44 (1989) 151
Saitoh, F., see Nakao, S.-I. 30 (1987) 273
Sakai, K., Chiba, H. and Naitoh, A.
Determination of the pore radius of regenerated cellulose membranes by a dyeing technique 37 (1988) 101
Sakai, K., Ozawa, K., Mimura, R. and Ohashi, H.
Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3
Sakai, T., Takenaka, H. and Torikai, E.
Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227
Salama, G., see Abramson, J.J. 33 (1987) 241
Saltonstall, C.W.
Calculation of the membrane area required for gas separations 32 (1987) 185
Samanta, T. and Basu, A.S.
Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89
Samanta, T. and Basu, A.S.
Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247
Samejima, S., see Nakamura, M. 36 (1988) 343
Sanchez, V., see Aimar, P. 29 (1986) 207
Sanchez, V., see Aimar, P. 38 (1988) 203
Sanchez, V., see Nobrega, R. 45 (1989) 17
Sander, U. and Soukup, P.
Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463
Sanders, E.S.
Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63
Sanders, E.S., see O'Brien, K.C. 29 (1986) 229
Sani, R.L., see Krantz, W.B. 29 (1986) 11
Santucci, E., see Alhaique, F. 45 (1989) 55
Sanui, K., see Yoshikawa, M. 26 (1986) 51
Sanui, K., see Yoshikawa, M. 32 (1987) 235
Sára, M., Manigley, C., Wolf, G. and Sleytr, U.B.
Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179
Sára, M. and Sleytr, U.B.
Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27
Sarrazin, J., see Raoult, E. 30 (1987) 23
Sarti, G.C., see Gostoli, C. 41 (1989) 211
Sartorio, R., see Ambrosone, L. 45 (1989) 299
Sata, T., Hanada, F. and Mizutani, Y.
Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151
Sata, T., Izuo, R. and Takata, K.
Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Sata, T. and Izuo, R.
Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209
Satoh, K., see Yonese, M. 26 (1986) 179
Satoh, M., see Nakanishi, T. 32 (1987) 69
Satoh, M., see Nakanishi, T. 47 (1989) 67
Satoh, M., see Zhang, W.-Z. 31 (1987) 147
Satoh, M., see Zhang, W.-Z. 35 (1988) 311
Satoh, M., see Zhang, W.-Z. 40 (1989) 343
Satoh, M., see Zhang, W.-Z. 42 (1989) 303
Scamehorn, J.F., see Gibbs, L.L. 30 (1987) 67
Schauer, J., Lopour, P. and Vacík, J.
The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169
Schlicher, L.R., see Cheryan, M. 48 (1990) 103
Schnabel, R., Langer, P. and Breitenbach, S.
Separation of protein mixtures by Bioran porous glass membranes 36 (1988) 55
Schneider, K., Hölz, W., Wollbeck, R. and Ripperger, S.
Membranes and modules for transmembrane distillation 39 (1988) 25
Schneider, N.S., see Angelopoulos, A.P. 34 (1987) 317
Schock, G., Miquel, A. and Birkenberger, R.
Characterization of ultrafiltration membranes: cut-off determination by gel permeation chromatography 41 (1989) 55
Schock, G., see Oldani, M. 43 (1989) 243
Schock, G., see Rautenbach, R. 36 (1988) 231
Schofield, R.W., Fane, A.G. and Fell, C.J.D.
Heat and mass transfer in membrane distillation 33 (1987) 299
Scholz, H., see Niemöller, A. 36 (1988) 385
Schultz, J.S., see Jain, R. 26 (1986) 313
Schulz, G. and Ripperger, S.
Concentration polarization in crossflow microfiltration 40 (1989) 173
Schwahn, P., see Hoffmann, E. 34 (1987) 199
Schwarz, H.-H., Richau, K. and Hicke, H.-G.
Annealing effect in porous cellulose acetate membranes 34 (1987) 283
Schwarz, H.-H., see Kůdela, V. 43 (1989) 39
Schwarz, H.-H. and Hicke, H.-G.
Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325
Schwengers, H.-P., see Cackovic, H. 26 (1986) 63
Scibona, G., see Fabiani, C. 30 (1987) 97
Seike, T., see Nakanishi, T. 47 (1989) 67
Sekiguchi, O., Kiyono, R., Matsubara, T. and Tasaka, M.
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition 48 (1990) 309
Sekiguchi, O., see Tasaka, M. 48 (1990) 91
Sekimoto, H., see Lee, Y.T. 42 (1989) 169
Selli, E., see Zeni, M. 36 (1988) 277
Selvey, C. and Reiss, H.
Kinetic effects on ion transport at the membrane–solution interface 30 (1987) 75
Semmens, M.J., see Qin, R. 50 (1990) 51
Sengupta, A. and Sirkar, K.K.
Ternary gas separation using two different membranes 39 (1988) 61
Seno, M., see Lee, Y.T. 42 (1989) 169
Seno, M., see Lee, Y.T. 49 (1990) 85
Seno, M., see Watanabe, S. 44 (1989) 253
Seno, M. and Kuroyanagi, Y.
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241
Seok, D.R., Kang, S.G. and Hwang, S.-T.
Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1
Seok, D.R., Kang, S.G. and Hwang, S.-T.
Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71
Seok, D.R., see Li, D. 37 (1988) 267
Seth, T.D., see Arif, H. 46 (1989) 203
Sferrazza, R.A., Escobosa, R. and Gooding, C.H.
Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125
Shah, P.R., see Raghava Rao, J. 46 (1989) 215
Shahi, V.K., see Singh, K. 49 (1990) 223
Shanthamurthy Aithal, U., Aminabhavi, T.M. and Cassidy, P.E.
Interactions of organic halides with a polyurethane elastomer 50 (1990) 225
Sharma, A., Goswami, A.N., Rawat, B.S. and Krishna, R.
Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19
Sharma, A., Goswami, A.N. and Krishna, R.
Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329
Sharma, A., see Krishna, R. 34 (1987) 141
Shelden, R.A., see Knight, K.F. 26 (1986) 31

Shettigar, U.R.
Innovative extracorporeal membrane systems 44 (1989) 89
Sheu, F.R., see Chern, R.T. 35 (1987) 103
Shiga, T., see Tateishi, N. 41 (1989) 315
Shih, H.-C., Yeh, Y.-S. and Yasuda, H.
Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299
Shimamoto, H., see Morita, Z. 46 (1989) 283
Shimamoto, H., see Morita, Z. 46 (1989) 299
Shimatani, S.-I., see Kimura, S. 33 (1987) 285
Shimatani, S., see Nakamae, K. 29 (1986) 267
Shimidzu, T., see Yoshikawa, M. 26 (1986) 107
Shimidzu, T. and Okushita, H.
Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349
Shimidzu, T. and Okushita, H.
Selective separation of cyclohexane–cyclohexanone–cyclohexanol mixtures through poly(*N*-vinylpyrrolidone-co-acrylonitrile) membrane 39 (1988) 113
Shimoda, S., see Chern, R.T. 48 (1990) 333
Shimohira, T., see Suhara, M. 41 (1989) 143
Shin, D.M., see Allen, M.T. 33 (1987) 201
Shindo, M., see Konno, M. 37 (1988) 193
Shinkai, S., see Kajiyama, T. 36 (1988) 243
Shirakawa, T., see Toi, K. 41 (1989) 37
Shkolnik, S., see Mey-Marom, A. 49 (1990) 321
Shndo, Y., see Haraya, K. 41 (1989) 23
Shoaib, M., see Arif, H. 46 (1989) 203
Shu-Sen, S.W.
Effect of solution viscosity on ultrafiltration flux 39 (1988) 187
Shu-Sen, S.W., Al-Lian, S.L., Ling-Ling, S.W. and De-Kuan, S.K.
Ultrafiltration of rice wine for removal of bacteria 44 (1989) 245
Shudo, S., see Yoshikawa, M. 26 (1986) 51
Shukla, J.P., see Walkowiak, W. 32 (1987) 59
Shukla, P.C. and Mishra, G.
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277
Shukla, P.C. and Mishra, G.
Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157
Siddiqi, F.A. and Alvi, N.I.
Transport studies with parchment supported model membranes 46 (1989) 185
Sieber, M., see Hoffmann, E. 34 (1987) 199
Siegel, G., Walter, A., Bostanjoglo, M., Jans, A.W.H., Kinne, R., Piculell, L. and Lindman, B.
Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353
Siegel, R.A.
A Laplace transform technique for calculating diffusion time lags 26 (1986) 251
Silipaş, D., see Mercea, P. 35 (1988) 291
Simonelli, A.P., see Klech, C.M. 43 (1989) 87
Sims, S.M. and Higuchi, W.I.
Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305
Singh, K. and Shahi, V.K.
Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223
Singh, K. and Tiwari, A.K.
Membrane potential studies on cholesterol liquid membranes 34 (1987) 155
Sipehia, R., Bannard, R.A.B. and Chang, T.M.S.
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277
Sipehia, R., Bannard, R.A.B. and Chang, T.M.S.
Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293
Sirkar, K.K., see Bhave, R.R. 27 (1986) 41
Sirkar, K.K., see Majumdar, S. 43 (1989) 259
Sirkar, K.K., see Prasad, R. 26 (1986) 79
Sirkar, K.K., see Prasad, R. 47 (1989) 235
Sirkar, K.K., see Prasad, R. 50 (1990) 153
Sirkar, K.K., see Sengupta, A. 39 (1988) 61
Slater, C.S.
Instruction in membrane separation processes 44 (1989) 265
Sleytr, U.B., see Sára, M. 33 (1987) 27
Sleytr, U.B., see Sára, M. 36 (1988) 179
Slezak, A.
Study of volume flux as a function of angle between membrane orientation and gravity 26 (1986) 115
Slough, C.L., Spinelli, M.J. and Kasting, G.B.
Transdermal delivery of etidronate (EHDP) in the pig via iontophoresis 35 (1988) 161
Smejtek, P.
The physicochemical basis of the membrane

toxicity of pentachlorophenol: an overview 33 (1987) 249
Smet, B. Poncelet de, see Poncelet, D. 50 (1990) 249
Smith, D.M., see Glaves, C.L. 46 (1989) 167
Smith, K.L., see Johnson, B.M. 31 (1987) 31
Smolders, C.A., see Franken, A.C.M. 33 (1987) 315
Smolders, C.A., see Gebben, B. 46 (1989) 29
Smolders, C.A., see Nakao, S. 26 (1986) 165
Smolders, C.A., see Reuvers, A.J. 34 (1987) 45
Smolders, C.A., see Reuvers, A.J. 34 (1987) 67
Smolders, C.A., see Ronner, J.A. 42 (1989) 27
Smolders, C.A., see Te Hennepe, H.J.C. 35 (1987) 39
Smolders, C.A., see Van den Berg, G.B. 31 (1987) 307
Smolders, C.A., see Van den Berg, G.B. 40 (1989) 149
Smolders, C.A., see Van den Berg, G.B. 47 (1989) 1
Smolders, C.A., see Van den Berg, G.B. 47 (1989) 25
Soukup, P., see Sander, U. 36 (1988) 463
Spinelli, M.J., see Slough, C.L. 35 (1988) 161
Sportelli, L., see Bonincontro, A. 41 (1989) 345
Springer, J., see Cackovic, H. 26 (1986) 63
Sridhar, P. and Subramaniam, G.
Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273
Sridhar, S.
Application of electrodialysis in the production of malic acid 36 (1988) 489
Srinivasan, M.P. and Stroeve, P.
Subdrop ejection from double emulsion drops in shear flow 26 (1986) 231
Srivastava, R.K., see Jain, A.K. 31 (1987) 195
Stanley, T.J., see Alger, M.M. 40 (1989) 87
Stanley, T.J. and Quinn, J.A.
Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243
Stannett, V.T., see Chern, R.T. 35 (1987) 103
Staude, E. and Passlack, J.
Characterization of ultrafiltration membranes by drying 28 (1986) 209
Steinhauser, H., see Wolff, J. 36 (1988) 207
Stengaard, F.F.
Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257
Stern, S.A., see Acharya, H.R. 37 (1988) 205
Stern, S.A., see Ichiraku, Y. 34 (1987) 5
Stern, S.A., see Zhou, S. 50 (1990) 19
Stern, S.A., Vaidyanathan, R. and Pratt, J.R.
Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1
Stevanovic, S., see Van der Waal, M.J. 40 (1989) 261
Stevens, T.S., see Davis, J.C. 31 (1987) 249
Storozhuk, I.P., see Dytnerskii, Y.I. 41 (1989) 49
Strathmann, H., see Bell, C.-M. 36 (1988) 315
Strathmann, H., see Ehrfeld, W. 36 (1988) 67
Strathmann, H., see Paul, H. 36 (1988) 363
Strieder, W., see Wolf, J.R. 49 (1990) 103
Stroeve, P., see Kim, J.-I. 45 (1989) 99
Stroeve, P., see Kim, J.-I. 49 (1990) 37
Stroeve, P., see Majumdar, A. 26 (1986) 329
Stroeve, P., see Srinivasan, M.P. 26 (1986) 231
Stroh, N., see Bauser, H. 27 (1986) 195
Stroh, N., see Gudernatsch, W. 36 (1988) 331
Stromberg, R.R., Friedman, L.I., Boggs, D.R. and Lysaght, M.J.
Membrane technology applied to donor plasmapheresis 44 (1989) 131
Stuart, M.A. Cohen, see Keurentjes, J.T.F. 47 (1989) 333
Stumm, F., see Hauser, J. 47 (1989) 261
Subramaniam, G., see Sridhar, P. 45 (1989) 273
Suddaby, B.R., see Allen, M.T. 33 (1987) 201
Sugawara, S., Konno, M. and Saito, S.
Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313
Sugawara, S., Konno, M. and Saito, S.
Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151
Sugawara, S., see Konno, M. 37 (1988) 193
Sugihara, H., see Hiratani, K. 35 (1987) 91
Sugioka, H., see Tasaka, M. 38 (1988) 27
Sugisaka, T., see Kawakami, Y. 50 (1990) 189
Sugiura, M., Kikkawa, M. and Urita, S.
Carrier-mediated transport of rare earth ions through cellulose triacetate membranes 42 (1989) 47
Sugo, T., see Saito, K. 34 (1987) 307
Sugo, T., see Saito, K. 43 (1989) 131
Suhara, M., Suzuki, K., Horie, H. and Shimohira, T.
Transport numbers in a perfluorocarboxylate cation-exchange membrane 41 (1989) 143
Suki, A., Fane, A.G. and Fell, C.J.D.
Modeling fouling mechanisms in protein ultrafiltration 27 (1986) 181
Suzuki, K., see Suhara, M. 41 (1989) 143
Suzuki, M., see Yoshikawa, M. 32 (1987) 235
Suzuki, S., see Tasaka, M. 38 (1988) 27
Suzuki, S., see Tasaka, M. 38 (1988) 175

Suzuki, S., see Tasaka, M. 48 (1990) 91
Swartz, R.W., see Forman, S.M. 48 (1990) 263
Szczurek, A., see Mika, A.M. 41 (1989) 163
Szust, J., see Plucinski, P. 38 (1988) 261

T

Taddei, C., see Aimar, P. 38 (1988) 203
Taguchi, K., see Hiratani, K. 35 (1987) 91
Takagi, R. and Nakagaki, M.
Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285
Takahashi, K., see Takeuchi, H. 33 (1987) 19
Takai, H., see Toi, K. 41 (1989) 37
Takata, K., see Sata, T. 45 (1989) 197
Takatsuka, M., see Masuda, T. 49 (1990) 69
Takenaka, H., see Sakai, T. 31 (1987) 227
Takeuchi, H., Takahashi, K. and Goto, W.
Some observations on the stability of supported liquid membranes 33 (1987) 19
Takeuchi, H. and Nakano, M.
Progressive wetting of supported liquid membranes by aqueous solutions 42 (1989) 183
Tallec, A., see Raoult, E. 30 (1987) 23
Tamaki, H., see Kishihara, S. 41 (1989) 103
Tamiya, E., see Gotoh, M. 41 (1989) 291
Tamiya, E., see Muramatsu, H. 41 (1989) 281
Tamiya, E., see Ohashi, E. 49 (1990) 95
Tanaka, K., Kita, H., Okamoto, K., Nakamura, A. and Kusuki, Y.
Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203
Tanaka, N., see Ueno, M. 41 (1989) 269
Tanaka, T., see Tasaka, M. 38 (1988) 27
Tanaka, Y., see Niwa, M. 39 (1988) 301
Tang, B.-Z., see Masuda, T. 49 (1990) 69
Tang, J. and Wai, C.M.
Transport of trivalent lanthanides in a H_2O–$CHCl_3$–H_2O liquid membrane system containing a crown ether carboxylic acid 35 (1988) 339
Tang, J. and Wai, C.M.
Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349
Tanigaki, M., see Yoshikawa, M. 47 (1989) 53
Tanioka, A., see Higa, M. 37 (1988) 251
Tanioka, A., see Higa, M. 49 (1990) 145
Tanioka, A., see Yokoyama, Y. 38 (1988) 223
Tanioka, A., see Yokoyama, Y. 43 (1989) 165
Tarodo de la Fuente, B., see Rios, G.M. 34 (1987) 331
Tarodo de la Fuente, B., see Rios, G.M. 38 (1988) 147
Tasaka, M., see Sekiguchi, O. 48 (1990) 309
Tasaka, M., Sekiguchi, O., Urahama, M., Matsubara, T., Kiyono, R. and Suzuki, S.
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91
Tasaka, M., Sugioka, H., Kamaya, M., Tanaka, T., Suzuki, S. and Ogawa, Y.
Dependence on salt concentration of bi-ionic potential across polystyrene sulfonic-acid-type membranes 38 (1988) 27
Tasaka, M., Suzuki, S., Ogawa, Y. and Kamaya, M.
Freezing and nonfreezing water in charged membranes 38 (1988) 175
Tasaka, M. and Futamura, H.
The effect of temperature on thermoosmosis 28 (1986) 183
Tateishi, M., see Kawakami, M. 30 (1987) 105
Tateishi, N., Okazaki, M. and Shiga, T.
Determination and kinetics of platelet adhesion onto material surfaces 41 (1989) 315
Te Hennepe, H.J.C., Bargeman, D., Mulder, M.H.V. and Smolders, C.A.
Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39
Tejerina, F., see Hernández, A. 27 (1986) 131
Tejerina, F., see Ibañez, J.A. 36 (1988) 45
Tejerina, F., see Martínez, L. 35 (1987) 1
Tejerina, F., see Martínez-Villa, F. 36 (1988) 19
Tejerina, F., see Martínez-Villa, F. 36 (1988) 31
Teramoto, M., Matsuyama, H., Yamashiro, T. and Okamoto, S.
Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115
Teramoto, M., Matsuyama, H. and Yonehara, T.
Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269
Teramoto, M., see Matsuyama, H. 47 (1989) 217
Tewari, R.K., see Jain, A.K. 31 (1987) 195
Thiel, S.W.
Linear relationships between rejection and

flux in pressure-driven membrane separation processes 43 (1989) 307
Thiel, S.W.
Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes 48 (1990) 127
Thiel, S.W., see Radovanovic, P. 48 (1990) 55
Thiel, S.W. and Lloyd, D.R.
Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233
Thiel, S.W. and Lloyd, D.R.
Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285
Thiel, S.W. and Lloyd, D.R.
Frictional and osmotic effects in the pressure-driven membrane separation of dilute solutions 50 (1990) 131
Thomas, A.G., see Barrie, J.A. 43 (1989) 229
Thomas, C.A., see Jackman, D.C. 30 (1987) 213
Thomas, M., Escoubes, M., Esnault, P. and Pineri, M.
Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57
Thombre, A.G., Zentner, G.M. and Himmelstein, K.J.
Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279
Thompson, D.H.P., see Hurst, J.K. 28 (1986) 3
Thompson, E.V., see Duggal, A. 27 (1986) 13
Thompson, E.V., see Knight, K.F. 26 (1986) 31
Tianyi, S., see Yuee, F. 39 (1988) 1
Timashev, S.F., see Bobreshova, O.V. 48 (1990) 221
Tison, R.P. and Mikhail, Y.M.
Transport depletion for nickel recovery 45 (1989) 65
Tiwari, A.K., see Singh, K. 34 (1987) 155
Tkacik, G., see Zeman, L. 32 (1987) 329
Tkacik, G., see Zeman, L. 36 (1988) 119
Tkacik, G. and Zeman, L.
Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273
Toda, K., see Nakao, S.-I. 30 (1987) 273
Toi, K., Takai, H., Shirakawa, T., Ito, T. and Ikemoto, I.
Analysis of the permeation of CO_2 through glassy polymers 41 (1989) 37
Tomicki, B.
Mechanics and thermodynamics in membrane permeation 39 (1988) 11
Tomioka, Y., see Kataoka, T. 46 (1989) 67
Torikai, E., see Sakai, T. 31 (1987) 227
Torre, E.R., see Venkataraman, K. 39 (1988) 259
Toscan, M., see Heinzelmann, W. 36 (1988) 79
Tou, J.C., see Caldecourt, V. 29 (1986) 1
Toyashima, I., see Kurosawa, S. 46 (1989) 157
Trent, J.S., see Xue, T. 45 (1989) 261
Trochimczuk, W., see Poźniak, G. 49 (1990) 55
Tromp, M., Burgard, M., Leroy, M.J.F. and Prevost, M.
Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295
Tsai, C.C., see Hsieh, K.H. 49 (1990) 341
Tsao, G.T., see Leeper, S.A. 30 (1987) 289
Tsapiuk, E.A., Bryk, M.T., Kochkodan, V.M. and Danilenko, E.E.
Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1
Tsapiuk, E.A., Bryk, M.T., Medvedev, M.I. and Kochkodan, V.M.
Fractionation and concentration of lignosulphonates by ultrafiltration 47 (1989) 107
Tse, P.-K., see Lamb, J.D. 37 (1988) 13
Tseng, S.M., see Hsieh, K.H. 49 (1990) 341
Tsimboukis, D.G., see Petropoulos, J.H. 27 (1986) 359
Tsuchida, T., Kimura, S. and Imanishi, Y.
Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155
Turker, M. and Hubble, J.
Membrane fouling in a constant-flux ultrafiltration cell 34 (1987) 267
Turnham, T.J., see Ward, R.A. 33 (1987) 97
Tuttle, M.E., see Johnson, B.M. 31 (1987) 31

U

Ueno, M., Tanaka, N. and Horikoshi, I.
Transformation from mixed micelles to vesicles 41 (1989) 269
Uglea, C.V. and Zănoagă, C.V.
Transport of amino acids through organic liquid membranes. I. *p*-Aminobenzoic acid 47 (1989) 285

Uhlhorn, R.J.R., Keizer, K. and Burggraaf, A.J.
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225
Uhlhorn, R.J.R., see Keizer, K. 39 (1988) 285
Uliana, C., see Vigo, F. 36 (1988) 187
Ulman, K.L., see Lee, C.-L. 38 (1988) 55
Urahama, M., see Tasaka, M. 48 (1990) 91
Urita, S., see Sugiura, M. 42 (1989) 47
Ursu, I., see Mercea, P. 35 (1988) 291

V

Vacík, J., see Schauer, J. 29 (1986) 169
Vadgama, P.
Membrane based sensors: a review 50 (1990) 141
Vaidyanathan, R., see Stern, S.A. 49 (1990) 1
Van den Berg, G.B., Hanemaaijer, J.H. and Smolders, C.A.
Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307
Van den Berg, G.B., Rácz, I.G. and Smolders, C.A.
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25
Van den Berg, G.B. and Smolders, C.A.
The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149
Van den Berg, G.B. and Smolders, C.A.
Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1
Van den Berg, J.W.A., see Reuvers, A.J. 34 (1987) 45
Van den Boomgaard, T., see Hanemaaijer, J.H. 40 (1989) 199
Vanderborgh, N.E., see Rieke, P.C. 32 (1987) 313
Van der Waal, M.J., Stevanovic, S. and Racz, I.G.
Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261
Van der Waal, M.J. and Racz, I.G.
Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243
Van 't Riet, K., see Fontyn, M. 36 (1988) 141
Van 't Riet, K., see Keurentjes, J.T.F. 47 (1989) 333
Van 't Riet, K., see Weldring, J.A.G. 38 (1988) 127
Van Vuren, R.J., see Keizer, K. 39 (1988) 285
Veeranjaneyulu, B., see Cheryan, M. 48 (1990) 103
Venkataraman, K., Choate, W.T., Torre, E.R., Husung, R.D. and Batchu, H.R.
Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259
Venkataraman, K., see Lee, C.-L. 38 (1988) 55
Verbrugge, M.W., see Pintauro, P.N. 44 (1989) 197
Verdier, A., see Choe, T.B. 26 (1986) 1
Verdier, A., see Choe, T.B. 26 (1986) 17
Vieth, W.R. and Jiang, Y.-S.
Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1
Vigo, F., Nicchia, M. and Uliana, C.
Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187
Violante, V., see Di Giulio, S. 36 (1988) 541
Visvanathan, C. and Ben Aïm, R.
Studies on colloidal membrane fouling mechanisms in crossflow microfiltration 45 (1989) 3
Vitagliano, V., see Ambrosone, L. 45 (1989) 299
Vivier, H., Pons, M.-N. and Portala, J.-F.
Study of microporous membrane structure by image analysis 46 (1989) 81
Von Baeyer, H., Lajous-Petter, A., Debrandt, W., Hampl, H., Kochinke, F. and Herbst, R.
Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215
Von Baeyer, H., see Kochinke, F. 36 (1988) 101
Voss, H.
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165
Vrentas, J.S., Duda, J.L. and Ling, H.-C.
Free-volume equations for polymer–penetrant diffusion 40 (1989) 101
Vrentas, J.S. and Wu, W.-T.
Buoyancy correction for oscillatory sorption experiments 31 (1987) 337
Vuren, R.J. Van, see Keizer, K. 39 (1988) 285
Vyavahare, N.R., Kulkarni, M.G. and Mashelkar, R.A.
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

W

Waal, M.J. Van der, Stevanovic, S. and Racz, I.G.
Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

Waal, M.J. Van der and Racz, I.G.
Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243

Wachtel, A., see Bartels, C.R. 32 (1987) 291

Wachter, R., see Bart, H.J. 36 (1988) 413

Wai, C.M., see Tang, J. 35 (1988) 339

Wai, C.M., see Tang, J. 46 (1989) 349

Walitza, E., see Bauser, H. 27 (1986) 195

Walkowiak, W., Brown, P.R., Shukla, J.P. and Bartsch, R.A.
Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Walter, A., see Siegel, G. 41 (1989) 353

Wamser, C.C., Calvin, M. and Graf, G.A.
Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Wang, J.L., see Woodin, T.S. 33 (1987) 221

Ward, III, W.J., see Cussler, E.L. 38 (1988) 161

Ward, R.A., Klein, E., Feldhoff, P.W. and Turnham, T.J.
Ultrafiltration: separation enhancement by counter-current cascading 33 (1987) 97

Ward, W.J., see Matson, S.L. 29 (1986) 79

Ward, W.J., see Perry, D. 44 (1989) 305

Wasan, D.T., see Gu, Z.M. 26 (1986) 129

Wassink, S. Groot, see Ronner, J.A. 42 (1989) 27

Watanabe, S., see Watanabe, S. 44 (1989) 253

Watanabe, S., Watanabe, S. and Seno, M.
Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Watson, J.M. and Payne, P.A.
A study of organic compound pervaporation through silicone rubber 49 (1990) 171

Way, J.D. and Noble, R.D.
Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Weber, R., see Morita, Z. 46 (1989) 283

Weber, R., see Morita, Z. 46 (1989) 299

Wehn, R., see Hoffmann, E. 34 (1987) 199

Weinberg, M.
The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Weldring, J.A.G. and Van 't Riet, K.
Physical properties of sodium carboxymethyl cellulose molecules adsorbed on a polyacrylonitrile ultrafiltration membrane 38 (1988) 127

Wessling, R.A., see Delaney, M.S. 49 (1990) 15

Whitten, D.G., see Allen, M.T. 33 (1987) 201

Wickham, M.D., see Ashworth, A.J. 34 (1987) 225

Wieczorek, P., see Bryjak, M. 37 (1988) 287

Wiedner, G., see Hoffmann, E. 34 (1987) 199

Wiencek, J. and Qutubuddin, S.
Microemulsion versus macroemulsion 45 (1989) 311

Wijmans, J.G., see Blume, I. 49 (1990) 253

Wijmans, J.G., see Nakao, S. 26 (1986) 165

Wijmans, J.G., see Pinnau, I. 37 (1988) 81

Witchey-Lakshmanan, L.C., Hopfenberg, H.B. and Chern, R.T.
Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

Witt, P., see Peinemann, K.-V. 27 (1986) 215

Woermann, D., see Hoffmann, E. 34 (1987) 199

Woermann, D., see Pfenning, D. 32 (1987) 105

Woermann, D., see Pfenning, D. 48 (1990) 291

Wolf, G., see Sára, M. 36 (1988) 179

Wolf, J.R. and Strieder, W.
Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

Wolff, J., Steinhauser, H. and Ellinghorst, G.
Tailoring of ultrafiltration membranes by plasma treatment and their application for the desalination and concentration of water-soluble organic substances 36 (1988) 207

Wollbeck, R., see Schneider, K. 39 (1988) 25

Won, Y.-S., see Ihm, S.-K. 32 (1987) 31

Won, Y.-S., see Jeong, Y.-H. 32 (1987) 47

Woodin, T.S. and Wang, J.L.
Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

Wu, W.-T., see Vrentas, J.S. 31 (1987) 337

Wu, X., Keister, J.C. and Cooper, E.R.
Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Wu, Y., see Drioli, E. 33 (1987) 277

X

Xu, P., see Kumazawa, E.S.H. 35 (1987) 117
Xu, P., see Sada, E. 37 (1988) 165
Xu, P., see Sada, E. 39 (1988) 89
Xu, Q., see Anderson, M.A. 39 (1988) 243
Xu, Y.F., see Huang, R.Y.M. 43 (1989) 143
Xue, T., see Osseo-Asare, K. 43 (1989) 5
Xue, T., Trent, J.S. and Osseo-Asare, K.
Characterization of Nafion membranes by transmission electron microscopy 45 (1989) 261

Y

Yamada, S., see Saito, K. 34 (1987) 307
Yamagishi, H., see Saito, K. 43 (1989) 131
Yamamoto, Y., see Hirata, Y. 41 (1989) 177
Yamashiro, T., see Teramoto, M. 45 (1989) 115
Yamauchi, A., Nishizono, I., Yang, W. and Kimizuka, H.
On the correlation between bi-ionic potential and the composition of counterions in liquid membranes. I. 34 (1987) 33
Yamauchi, A., Okazaki, Y., Kurosaki, R., Hirata, Y. and Kimizuka, H.
Effect of ionic charge on the electrical properties of an amphoteric ion exchange membrane 32 (1987) 281
Yamauchi, A., see Hirata, Y. 41 (1989) 177
Yamauchi, A., see Hirata, Y. 48 (1990) 25
Yamauchi, A., see Yang, W. 31 (1987) 109
Yamazaki, H., see Ikeda, I. 46 (1989) 113
Yamazaki, N.
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249
Yan, Z. and Kao, Y.-K.
Comparative study of two-membrane permeators for gas separations 42 (1989) 147
Yang, M.-C. and Cussler, E.L.
Artificial gills 42 (1989) 273
Yang, W., see Yamauchi, A. 34 (1987) 33
Yang, W., Yamauchi, A. and Kimizuka, H.
Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109
Yao, C.W., Burford, R.P., Fane, A.G. and Fell, C.J.D.
Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113
Yasuda, H., see Kramer, P.W. 46 (1989) 1
Yasuda, H., see Shih, H.-C. 50 (1990) 299
Yau, S.-L., Rillema, D.P., Jackman, D.C. and Daignault, L.G.
Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27
Yau, S.-L., see Jackman, D.C. 30 (1987) 213
Yau, S.-L., see Jackman, D.C. 34 (1987) 109
Yeh, Y.-S., see Kramer, P.W. 46 (1989) 1
Yeh, Y.-S., see Shih, H.-C. 50 (1990) 299
Yilmaz, L., see McHugh, A.J. 43 (1989) 319
Yilmaz, L. and McHugh, A.J.
Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287
Yohda, M., see Kagawa, Y. 41 (1989) 237
Yokoyama, Y., Tanioka, A. and Miyasaka, K.
Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223
Yokoyama, Y., Tanioka, A. and Miyasaka, K.
Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165
Yonehara, T., see Teramoto, M. 50 (1990) 269
Yonese, M., Satoh, K. and Kishimoto, H.
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179
Yoshida, H., see Imai, Y. 41 (1989) 393
Yoshida, H., see Miyamoto, M. 41 (1989) 377
Yoshida, S. and Hayano, S.
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99
Yoshikawa, M., Kishida, M., Tanigaki, M. and Eguchi, W.
Novel liquid membrane transport system for tryptophan 47 (1989) 53
Yoshikawa, M., Ogata, N. and Shimidzu, T.
Polymer membrane as a reaction field. III. Effect of membrane polarity on selective

separation of a water–ethanol binary mixture through synthetic polymer membranes 26 (1986) 107
Yoshikawa, M., Shudo, S., Sanui, K. and Ogata, N.
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51
Yoshikawa, M., Suzuki, M., Sanui, K. and Ogata, N.
Transport of amino acids through synthetic polymer membranes containing pyridinium cationic charge sites 32 (1987) 235
Yoshikawa, N., see Niwa, M. 39 (1988) 301
Yoshioka, N., see Baker, R.W. 31 (1987) 259
Yoshitome, H., see Haraya, K. 41 (1989) 23
Yoshizumi, T., see Itoh, H. 27 (1986) 155
Yu, I.-Y., see Huang, T.-C. 35 (1988) 193
Yuee, F. and Tianyi, S.
Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Z

Zaidi, S.B., see Rizvi, S.A. 29 (1986) 259
Zander, A.K., see Qin, R. 50 (1990) 51
Zanderighi, L., see Pegoraro, M. 27 (1986) 203
Zănoagă, C.V., see Uglea, C.V. 47 (1989) 285
Zdrahala, R.J., see Karakelle, M. 41 (1989) 305
Zeman, L., see Tkacik, G. 31 (1987) 273
Zeman, L., Tkacik, G. and Le Parlouer, P.
Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329
Zeman, L. and Tkacik, G.
Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119
Zeni, M., Bellobono, I.R., Muffato, F., Polissi, A., Selli, E. and Rastelli, E.
Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277
Zentner, G.M., see Thombre, A.G. 40 (1989) 279
Zhang, W.-Z., Nodera, A., Satoh, M. and Komiyama, J.
Effects of nonvolatile additives on permeabilities of O_2 and N_2 through water-swollen poly(vinyl alcohol) membranes 35 (1988) 311
Zhang, W.-Z., Satoh, M. and Komiyama, J.
Permeability to O_2 and N_2 of poly(vinyl alcohol) membranes swollen with aqueous solutions of nonvolatile substances 31 (1987) 147
Zhang, W.-Z., Satoh, M. and Komiyama, J.
A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343
Zhang, W.-Z., Satoh, M. and Komiyama, J.
A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303
Zhou, S. and Stern, S.A.
The solubility of hydrogen in glassy poly(vinyl acetate) at elevated pressures 50 (1990) 19
Zhu, C.Y. and Izatt, R.M.
Macrocycle-mediated separation of Eu^{2+} from trivalent lanthanide cations in a modified thin-sheet-supported liquid membrane system 50 (1990) 319
Żuk, J.S.
Computer simulation of ultrafiltration processes 36 (1988) 201
Zydney, A.L., see Robertson, B.C. 49 (1990) 287

CUMULATIVE SUBJECT INDEX

VOLUMES 26–50

A

Absolute reaction rate theory
Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89

Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247

Transport studies with parchment supported model membranes 46 (1989) 185

Absorption spectroscopy
Photoreduction of methylene blue in Nafion membrane 41 (1989) 163

Acetic acid extraction
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309

Separating acetic acid from liquids 50 (1990) 51

Acetone permeation
Selection of polymers for pervaporation membranes 36 (1988) 315

Acetylation, degree of
The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Acetyl cellulose membrane
A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Acid recovery
Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273

AC impedance technique
AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Acrylic acid
Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Acrylic acid graft
Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Actin–myosin complex
Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

Activated charcoal
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Activation energy
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211

Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89

Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225

Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Active transport
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51

Transport of amino acids through synthetic polymer membranes containing pyridinium cationic charge sites 32 (1987) 235

Activity coefficients
Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes 48 (1990) 127

Activity profiles
A simple method to derive activity profiles and diffusivities of permeants in a membrane from steady state permeation measurements 50 (1990) 1

Additives as permeation enhancers
Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329

Adsorption isotherm
Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

Adsorption of lipophilic molecules
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Adsorption of macromolecules
Physical properties of sodium carboxymethyl cellulose molecules adsorbed on a polyacrylonitrile ultrafiltration membrane 38 (1988) 127

Adsorption of methylene blue
Photoreduction of methylene blue in Nafion membrane 41 (1989) 163

Adsorption of monodisperse solutes
Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Adsorption of polyelectrolytes
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17

Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Adsorption of proteins
Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

Membrane fouling in a constant-flux ultrafiltration cell 34 (1987) 267

Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189

Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Advancing front model
Modeling of liquid membrane separation processes 36 (1988) 425

Aeration, bubble free
Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

Aerosol spray
Analysis of membrane permeation from a deposited droplet 34 (1987) 317

Agglutination
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Air gap membrane distillation
Separation of liquid mixtures by membrane distillation 41 (1989) 211

Air pollution prevention
Separation of organic vapors from air 31 (1987) 259

Removal of organic vapors from air by selective membrane permeation 36 (1988) 363

Solvent recovery from air 36 (1988) 477

SO_2 separation from gaseous mixtures by membranes 41 (1989) 49

Alanine receptor
A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Albumin-based membrane
Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

Alcohol concentration
Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Membrane separations in ethanol recovery: an analysis of two applications of hyperfiltration 30 (1987) 289

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Alcohol permeation
Selection of polymers for pervaporation membranes 36 (1988) 315

Alginate microcapsules
Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323

Aliquat
Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Alkali cation transport
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69

Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1

Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109

Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Silacrown ionophores 32 (1987) 83

Synthesis and properties of noncyclic polyether compounds. XV. Noncyclic polyether carriers exhibiting potassium-ion-selective transport through liquid membranes: their structures and cation selectivity 35 (1987) 91

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125

Alkali chloride transport
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

The effect of temperature on thermoosmosis 28 (1986) 183

Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97

Coupled transport membranes incorporating a polymeric crown ether carboxylic acid 34 (1987) 87

Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Water and salt transport through two types of polyamide composite membranes 36 (1988) 297

Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

Alkali hydroxide transport
Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243

Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Alkali metal chloride transport
Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

Alkaline earth cation transport
The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69

Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Alkaline earth chloride transport
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Alkane diffusion
Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

Alkane permeation
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31

A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197

Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

A note on the effects of mono- and di-bromination on the transport properties of poly(2,6-dimethylphenylene oxide) 48 (1990) 333

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Alkane sorption
Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Sorption of benzene and n-hexane in polyethylene 35 (1988) 207

Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

Alkane transport
Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229

Alkene permeation
Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Alkene solubility
Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Alkyne permeation
Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Alumina membrane
Microporous alumina membranes 39 (1988) 221

Titania and alumina ceramic membranes 39 (1988) 243

Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Aluminum oxide membrane
A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Amidoxime groups
Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Amine functional groups
Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Amino acid transport
Transport of amino acids through synthetic polymer membranes containing pyridinium cationic charge sites 32 (1987) 235

Crown-ether mediated transport of amino acids through an immobilized liquid membrane 37 (1988) 287

Novel liquid membrane transport system for tryptophan 47 (1989) 53

Transport of amino acids through organic liquid membranes. I. *p*-Aminobenzoic acid 47 (1989) 285

Aminotransferase
A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Amphiphile multilayers
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63

Amphoteric membrane
see ion exchange membrane, amphoteric

Anaesthetics
Diffusion of local anesthetics through liquid membranes 26 (1986) 329

Aniline permeation
Transport of aniline, chloroaniline, nitroaniline, and urea through perfluorosulfonated ionomer membranes 28 (1986) 311

Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Anion exchange membrane
Application of ion exchange membranes to the recovery of acids by diffusion dialysis 27 (1986) 173

Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23

Anion exchange membranes consisting of poly(vinylpyridine) and poly(vinylbenzyl chloride) for Cr/Fe redox batteries 36 (1988) 535

Nitrate-selective anion-exchange membranes 38 (1988) 101

Weak acid–strong base type charge-mosaic membrane. I. Carboxylic acid–quaternary amine system 43 (1989) 205

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Anisotropic membrane
Barrier membranes 38 (1988) 161

Unsteady diffusion in barrier membranes 44 (1989) 305

Annealing
Annealing effect in porous cellulose acetate membranes 34 (1987) 283

Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39

Anthraquinone
A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Antibody response
Antibody response of polymer membrane electrodes incorporating antigenic ionophores 30 (1987) 313

Antiplasticization
Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

Response to comments by Vrentas, Duda and Ling 40 (1989) 109

Antiport mechanism
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51

Transport of amino acids through synthetic polymer membranes containing pyridinium cationic charge sites 32 (1987) 235

Apheresis
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Artificial gill
Artificial gills 42 (1989) 273

Artificial kidney
Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

Solute transport characteristics in hemodiafiltration 39 (1988) 99

Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Innovative extracorporeal membrane systems 44 (1989) 89

Artificial pancreas
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541

Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Asymmetric membrane
Asymmetric polyetherimide membrane for helium separation 27 (1986) 215

Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267

The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181

ATP synthase
Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Attenuated total reflectance infrared spectrometry
A surface science investigation of composite membranes 45 (1989) 225

Aviation fuel
Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19

Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329

Axial diffusion
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143

Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Axially rotating filter
Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85

Azeotropic mixtures
see separation of azeotropic mixtures

Azobenzene permeation
Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Azobenzene release
Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

B

Bacterial cell concentration
Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245

Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85

Bacterial cell wall proteins
Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Bacteria removal
Ultrafiltration of rice wine for removal of bacteria 44 (1989) 245

Barrier film
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

Analysis of membrane permeation from a deposited droplet 34 (1987) 317

Barrier membrane
Barrier membranes 38 (1988) 161

Barrier membranes; concepts revisited 43 (1989)

Unsteady diffusion in barrier membranes 44 (1989) 305

Barrier plastics
Measurement of transport parameters in polymer films: flux overshoot produced by a step change in temperature 40 (1989) 87

Battery, Iron–Chromium
Anion exchange membranes consisting of poly(vinylpyridine) and poly(vinylbenzyl chloride) for Cr/Fe redox batteries 36 (1988) 535

Battery, zinc / redox
Development of sulfonated polysulfone membranes for redox flow batteries 38 (1988) 71

Battery separators
Anion exchange membranes consisting of poly(vinylpyridine) and poly(vinylbenzyl chloride) for Cr/Fe redox batteries 36 (1988) 535

Development of sulfonated polysulfone membranes for redox flow batteries 38 (1988) 71

Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243

Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Benzene sorption
Sorption of benzene and n-hexane in polyethylene 35 (1988) 207

Benzene transport
Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269

Benzoic acid release
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Bi-ionic potential
On the correlation between bi-ionic potential and the composition of counterions in liquid membranes. I. 34 (1987) 33

Dependence on salt concentration of bi-ionic potential across polystyrene sulfonic-acid-type membranes 38 (1988) 27

Transport studies with parchment supported model membranes 46 (1989) 185

Bilayer lipid membrane
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Bilayer membrane
Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Bioadhesion
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Biocompatibility
Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Determination and kinetics of platelet adhesion onto material surfaces 41 (1989) 315

Biological membrane
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Total mass transport through a nonhomogeneous membrane 29 (1986) 333

Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345

Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Electro-osmotic flow measurements 41 (1989) 377

Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203

Biological suspensions
Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245

Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85

Biomedical membrane
A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Biomembrane analog
Photoreduction of methylene blue in Nafion membrane 41 (1989) 163

Biomembrane analogs
The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Transport studies with parchment supported model membranes 46 (1989) 185

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Biorecognition
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Biosensor
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281

Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291

A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Membrane based sensors: a review 50 (1990) 141

Biotechnology
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Capillary membrane reactors: performance and applications 27 (1986) 253

Unsteady-state behaviour of enzyme membrane reactors with substrate rejection 27 (1986) 263

Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243

Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Membrane reactor in fatty acid production 36 (1988) 525

Fluid mechanics in membrane filtration: recent developments 40 (1989) 123

Fouling of microporous membranes in biological applications 40 (1989) 231

Sucrose bioconversion in membrane reactors 41 (1989) 225

Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323

Bipolar membrane
Membrane potential and permeation of salts across bipolar membranes 32 (1987) 267

Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Bis(2-ethylhexyl)phosphoric acid
Coupled zinc transport through a bis(2-ethylhexyl)phosphoric acid solid-supported liquid membrane from aqueous perchlorate media 27 (1986) 77

Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

Transport of zinc through a supported liquid membrane using di(2-ethylhexyl) phosphoric acid as a mobile carrier 31 (1987) 209

Kinetic study of the extraction of copper(II) by di(2-ethylhexyl)phosphoric acid in a Lewis-type cell 37 (1988) 181

Bisphenol-A
Polymeric membranes based on bisphenol-A for gas separations 42 (1989) 69

Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103

Black liquor regeneration
Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83

Block copolymers
Weak acid–strong base type charge-mosaic membrane. I. Carboxylic acid–quaternary amine system 43 (1989) 205

Blood glucose regulation
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541

Blood plasma fractionation
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Membrane plasma separation and the on-line treatment of plasma by membranes 44 (1989) 55

Blood / surface interaction
Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

Blood treatment
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Solute transport characteristics in hemodiafiltration 39 (1988) 99

Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Controlling factors in hemofiltration 44 (1989) 35

Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Membrane plasma separation and the on-line treatment of plasma by membranes 44 (1989) 55

Innovative extracorporeal membrane systems 44 (1989) 89

Innovative processes for membrane plasma separation 44 (1989) 115

Membrane technology applied to donor plasmapheresis 44 (1989) 131

Bond graph techniques
Membrane transport system modeled by network thermodynamics 41 (1989) 3

Book reviews
Synthetic polymeric membranes. A structural perspective, Robert E. Kesting 26 (1986) 341

Retrieval index and abstracts of U.S. patents – Membrane separation processes, James R. Critser, Jr. 29 (1986) 225

Progress in filtration and separation, R.J. Wakeman 30 (1987) 227

Membranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 343

Fluid mixture separation technologies for cost reduction and process improvement, J.L. Bravo et al. 32 (1987) 117

Synthetic membranes, Maynard B. Chenoweth 32 (1987) 339

Ultrafiltration handbook, Munir Cheryan 32 (1987) 341

Membrane separations in biotechnology, W.C. McGregor 33 (1987) 113

Genetic engineering and biotechnology yearbook 1986/87, S.K. Hammer 33 (1987) 114

Advances in drug delivery systems, James M. Anderson and Sung Wan Kim 34 (1987) 121

Materials science of synthetic membranes, Douglas R. Lloyd 34 (1987) 241

Techniques for the analysis of membrane proteins, C.I. Ragan and R.J. Cherry 34 (1987) 242

Synthetic membranes: science, engineering and applications, P.M. Bungay, H.K. Lonsdale and M.N. de Pinho 34 (1987) 355

Retrieval index and abstracts of U.S. patents – Membrane separation processes, James R. Critser, Jr. 35 (1988) 241

Separation, recovery, and purification in biotechnology: recent advances and mathematical modeling, Juan A. Asenjo and J. Huang 39 (1988) 93

Membrane filtration – The technology of pressure-driven crossflow processes, R.G. Gutman 40 (1989) 351

Advances in drug delivery systems, 3, James M. Anderson and Sung Wan Kim 43 (1989) 121

Electrodialysis – A bibliography 1975–1985, E.A. Scheuermann 43 (1989) 327

Hemofiltration, L.W. Henderson, E.A. Quellhorst, C.A. Baldamus and M.J. Lysaght 44 (1989) 145

Controlled release of biologically active agents, Richard Baker 44 (1989) 313

Genetic engineering and biotechnology yearbook. N. America and Japan edition 1988/89, Alan G. Walton and Sharon K. Hammer 45 (1989) 191

New membrane materials and processes for separation, K.K. Sirkar and D.R. Lloyd 45 (1989) 313

Separation technology, Norman N. Li and Heiner Strathmann 46 (1989) 121

Tradenames in the field of membrane techniques (no author) 47 (1989) 000

Biological and synthetic membranes, D. Allan Butterfield 47 (1989) 229

Proceedings of the second international conference on pervaporation processes in the chemical industry, R. Bakish 47 (1989) 345

Membranes in gas separation and enrichment (no author) 49 (1990) 235

Biosignal transduction mechanisms, Michiki Kasai, Tohru Yoshioka and Hideo Suzuki 49 (1990) 351

Reverse osmosis technology, Bipin S. Parekh 49 (1990) 352

Membrane applications and research in food processing, C.M. Mohr et al. 50 (1990) 101

Boundary layer effects
Boundary layer effects on membrane permeation rates 27 (1986) 359

Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

Boundary layer reduction
Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331

Boundary layer resistance model
Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165

Effect of solution viscosity on ultrafiltration flux 39 (1988) 187

The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149

Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1

Boundary layer theory
A simplified intrinsic rejection coefficient model for capillary hollow fibers 49 (1990) 241

Boundary layer thickness
Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Bovine serum albumin
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17

Brine concentration
Transport phenomena in membrane distillation 33 (1987) 285

Membranes and modules for transmembrane distillation 39 (1988) 25

Bubble pressure method
Permoporometric study on ultrafiltration membranes 41 (1989) 69

Buoyancy correction
Buoyancy correction for oscillatory sorption experiments 31 (1987) 337

C

Cadmium extraction
Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

Cadmium transport
The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Cake filtration model
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165

Cake growth rate
Effect of turbulence on film permeability in cross-flow membrane filtration 48 (1990) 343

Cake permeability
Investigation of the effect of solution destabilization on flux enhancement in filtration 32 (1987) 93

Calcium ion detection
Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Calcium ion release
Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

Cancer chemotherapy
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241

CAPD
see continuous ambulatory peritoneal dialysis

Capillary gas permeator
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143

Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

Capillary membrane
Capillary membrane reactors: performance and applications 27 (1986) 253

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Capillary network
Relative permeability of parallel and serial capillary models with various radius distributions 35 (1987) 21

Relative gas permeability of capillary networks with various size distributions 37 (1988) 1

Carbohydrate binding, specific
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Carbon dioxide, effect of exposure to
The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103

Carbon dioxide diffusion
Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Carbon dioxide permeation
A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Analysis of the permeation of CO_2 through glassy polymers 41 (1989) 37

Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197

Artificial gills 42 (1989) 273

A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

A note on the effects of mono- and di-bromination on the transport properties of poly(2,6-dimethylphenylene oxide) 48 (1990) 333

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

Carbon dioxide sorption
Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Carbon dioxide transport
Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Carbon monoxide permeation
Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

Carrier-mediated extraction
Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Liquid film pertraction. Recovery of iodine from iodine-containing aqueous solutions 37 (1988) 277

Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295

Supported liquid membranes for copper transport 44 (1989) 273

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

Carrier-mediated transport
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339

Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69

Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165

Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49

Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

The mechanism of transport of uranyl nitrate across a solid supported liquid membrane using tributyl phosphate as mobile carrier 29 (1986) 295

Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31

Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Transport of zinc through a supported liquid membrane using di(2-ethylhexyl) phosphoric acid as a mobile carrier 31 (1987) 209

The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

On the correlation between bi-ionic potential and the composition of counterions in liquid membranes. I. 34 (1987) 33

Synthesis and properties of noncyclic polyether compounds. XV. Noncyclic polyether carriers exhibiting potassium-ion-selective transport

through liquid membranes: their structures and cation selectivity 35 (1987) 91

Transport of trivalent lanthanides in a H_2O–$CHCl_3$–H_2O liquid membrane system containing a crown ether carboxylic acid 35 (1988) 339

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Crown-ether mediated transport of amino acids through an immobilized liquid membrane 37 (1988) 287

Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13

Carrier-mediated transport of rare earth ions through cellulose triacetate membranes 42 (1989) 47

On the limits of facilitated diffusion 43 (1989) 149

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115

Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113

Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349

Novel liquid membrane transport system for tryptophan 47 (1989) 53

Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Transport of amino acids through organic liquid membranes. I. *p*-Aminobenzoic acid 47 (1989) 285

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37

Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207

Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269

Macrocycle-mediated separation of Eu^{2+} from trivalent lanthanide cations in a modified thin-sheet-supported liquid membrane system 50 (1990) 319

Carrier-mediated transport, catalyzed
An analysis of catalyzed facilitated transport 33 (1987) 51

Carrier-mediated transport, effect of co-anion on
Effect of co-anion on DC18C6-mediated Tl^+ transport through an emulsion liquid mebrane 28 (1986) 77

Cascades
Ultrafiltration: separation enhancement by counter-current cascading 33 (1987) 97

Case II transport
Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Casting
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267

Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Casting solution concentration
Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325

Catalysis
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

An analysis of catalyzed facilitated transport 33 (1987) 51

Cathode sputtering
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Cathodic reduction
Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23

Cation exchange membrane
Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105

Mobility and self-diffusion coefficient of sulphate co-ion in a grafted cation-exchange membrane 32 (1987) 175

Selective separation of nickel and copper from a complexing solution by a cation-exchange membrane 37 (1988) 131

Dependence on salt concentration of bi-ionic potential across polystyrene sulfonic-acid-type membranes 38 (1988) 27

Transport numbers in a perfluorocarboxylate cation-exchange membrane 41 (1989) 143

Preparation of microporous membranes from cation exchange membranes 42 (1989) 233

Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243

Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209

Cation exchange regeneration waste
Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273

Celgard film
see polypropylene

Cell culture
Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323

Cellulose acetate
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. VI. Experimental results for the water/ethanol system 27 (1986) 13

Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301

Cellulose acetate membrane
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211

Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143

A hydrodynamic study of the retention of polyethylene glycols by cellulose acetate membranes in the absence and presence of proteins 30 (1987) 259

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Annealing effect in porous cellulose acetate membranes 34 (1987) 283

Production and characterization of homogeneous porous polymer films 36 (1988) 79

Morphological studies of cellulose acetate hollow fiber membranes 37 (1988) 113

Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming system by means of pulse-induced critical scattering (PICS) 42 (1989) 27

Carrier-mediated transport of rare earth ions through cellulose triacetate membranes 42 (1989) 47

Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197

Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39

Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71

Cellulose membrane
Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Selection of polymers for pervaporation membranes 36 (1988) 315

Determination of the pore radius of regenerated cellulose membranes by a dyeing technique 37 (1988) 101

Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Anion permeability of cellulosic membranes. Part 2. Effect of fixed groups on permeation of co-ions 46 (1989) 299

Cellulosic polyelectrolyte membrane
Highly water selective cellulosic polyelectrolyte membranes for the pervaporation of alcohol–water mixtures 32 (1987) 207

Ceramic membrane
Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Pore structures of sol–gel silica membranes 39 (1988) 213

Microporous alumina membranes 39 (1988) 221

Titania and alumina ceramic membranes 39 (1988) 243

Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259

Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103

Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Ceramic support
Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Chained carrier membrane
On the limits of facilitated diffusion 43 (1989) 149

Charge-mosaic membrane
Weak acid–strong base type charge-mosaic membrane. I. Carboxylic acid–quaternary amine system 43 (1989) 205

Charge characteristics
Characterization of electric charges in microporous membranes 39 (1988) 79

Charged capillary pore model
Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Charged layer
Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209

Charged membrane
Salt permeation through cationic membranes with quaternary ammonium groups of different alkyl chain lengths 26 (1986) 263

Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67

A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Charged pores
Characterization of electric charges in microporous membranes 39 (1988) 79

The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

Charge separation
Artificial photosynthesis 33 (1987) 137

Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151

Chelating membrane
Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Chemical resistance
Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29

Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243

Chemical value
Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Chemical valve
Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327

Chloroform liquid membrane
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

Synthesis and properties of noncyclic polyether compounds. XV. Noncyclic polyether carriers exhibiting potassium-ion-selective transport through liquid membranes: their structures and cation selectivity 35 (1987) 91

Transport of trivalent lanthanides in a H_2O–$CHCl_3$–H_2O liquid membrane system containing a crown ether carboxylic acid 35 (1988) 339

Novel liquid membrane transport system for tryptophan 47 (1989) 53

Transport of amino acids through organic liquid membranes. I. *p*-Aminobenzoic acid 47 (1989) 285

Chloroform sorption
Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Cholesterol liquid membrane
Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195

Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

Chrome tanning
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Chromium recovery
Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Chromium reuse
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Citric acid
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Citrus juice
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Cluster-network model
Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227

Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313

Clusters, Ionic
Characterization of Nafion membranes by transmission electron microscopy 45 (1989) 261

Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Cluster size
Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Coagulation bath composition
Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Cobalt extraction
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Cobalt ion diffusion
Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Cobalt transport
Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Coenzyme Q_{10}
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

Collodion membrane
Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

The effect of temperature on thermoosmosis 28 (1986) 183

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition 48 (1990) 309

Colloids
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Investigation of the effect of solution destabilization on flux enhancement in filtration 32 (1987) 93

Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231

Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Studies on colloidal membrane fouling mechanisms in crossflow microfiltration 45 (1989) 3

Colloids, Crossflow ultrafiltration
Charge effects in the cross-flow filtration of colloids and particulates 43 (1989) 69

Colorimetry
A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Commercial potential of membrane technology
The focussing of membrane R&D on areas of commercial potential 36 (1988) 5

Competitive facilitated gas transport
Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Competitive metal ion transport
Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Complex formation
Ion-exchange equilibria involving complex formation in aqueous solution 34 (1987) 127

Complexing agent
Ion-exchange equilibria involving complex formation in aqueous solution 34 (1987) 127

Selective separation of nickel and copper from a complexing solution by a cation-exchange membrane 37 (1988) 131

Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Composite membrane
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63

Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327

Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291

The evolution of ultrathin synthetic membranes 33 (1987) 121

Production and characterization of homogeneous porous polymer films 36 (1988) 79

Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Water and salt transport through two types of polyamide composite membranes 36 (1988) 297

Gas permeation through composite membranes 37 (1988) 81

A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

SO_2 separation from gaseous mixtures by membranes 41 (1989) 49

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

A surface science investigation of composite membranes 45 (1989) 225

Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243

Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103

The separation of dissolved organics from water by pervaporation 49 (1990) 253

Composite supported liquid membrane

A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339

Computer simulation techniques

A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117

Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

Calculation of the membrane area required for gas separations 32 (1987) 185

Computer simulation of ultrafiltration processes 36 (1988) 201

Relative gas permeability of capillary networks with various size distributions 37 (1988) 1

Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149

Phenol permeation through liquid surfactant membrane–permeation model and effective diffusivity 41 (1989) 197

Separation of liquid mixtures by membrane distillation 41 (1989) 211

Application of network thermodynamics to the computer modelling of nonstationary diffusion through heterogeneous membranes 42 (1989) 1

Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

Concentration polarization

Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153

Membrane fouling in a constant-flux ultrafiltration cell 34 (1987) 267

Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331

Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193

Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II.

Application to the characterization of ultrafiltration membranes 37 (1988) 145

Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Fluid mechanics in membrane filtration: recent developments 40 (1989) 123

The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149

Concentration polarization in crossflow microfiltration 40 (1989) 173

Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243

Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

Innovative processes for membrane plasma separation 44 (1989) 115

Membrane technology applied to donor plasmapheresis 44 (1989) 131

Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1

Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Fractionation and concentration of lignosulphonates by ultrafiltration 47 (1989) 107

Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

Selective ultrafiltration 50 (1990) 109

Concentration potential
Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39

Concentration profiles
Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57

Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181

Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

Conditioning
The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Conducting polymers
Electrically conductive membranes: synthesis and applications 50 (1990) 31

Conductivity measurements
Determination of self-diffusion coefficients from conductivity measurements in perfluorinated ionomer membranes 50 (1990) 325

Conductometry
Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345

Conformation of macromolecules in diffusion
Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167

Contact angle measurements
Wetting criteria for the applicability of membrane distillation 33 (1987) 315

Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199

Progressive wetting of supported liquid membranes by aqueous solutions 42 (1989) 183

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

Continuous ambulatory peritoneal dialysis
Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Continuous membrane column
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Controlled porosity device
Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Controlled release
Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Polyamide microcapsules for controlled release. I. Characterization of the membranes 40 (1989) 1

Polyamide microcapsules for controlled release. II. Release characteristics of the microcapsules 40 (1989) 27

Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Convection / current driven transport
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Convective transport
Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Solute transport characteristics in hemodiafiltration 39 (1988) 99

Copper extraction
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Mass transfer in a permeation column 36 (1988) 413

Kinetic study of the extraction of copper(II) by di(2-ethylhexyl)phosphoric acid in a Lewis-type cell 37 (1988) 181

Role of surfactants in the behavior of emulsion liquid membranes–development of new surfactants 38 (1988) 249

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

Copper ion permeation
Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67

Copper transport
Supported liquid membranes for copper transport 44 (1989) 273

Cornea
Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Countercurrent permeator
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47

Counterdiffusion
Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Counterion solvation
Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105

Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions 48 (1990) 291

Coupled-diffusion
Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane 48 (1990) 55

Coupled diffusion
A simple method to derive activity profiles and diffusivities of permeants in a membrane from steady state permeation measurements 50 (1990) 1

Coupled mass / charge transport
Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49

Coupled reaction / diffusion
Integration of membrane equations in the presence of sources and directional biases: on the consistent definition of kinetic potentials in diffusion–reaction–convection coupling and related transport problems 35 (1988) 271

Coupled transport
Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303

Coupled zinc transport through a bis(2-ethylhexyl)phosphoric acid solid-supported liquid membrane from aqueous perchlorate media 27 (1986) 77

Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1

Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Coupled transport membranes incorporating a polymeric crown ether carboxylic acid 34 (1987) 87

Water and salt transport through two types of polyamide composite membranes 36 (1988) 297

Carrier-mediated transport of rare earth ions through cellulose triacetate membranes 42 (1989) 47

Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

The role of coupling in pervaporation 47 (1989) 277

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37

Creatinine
Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Creatinine permeation
Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Creeping film pertraction
see liquid film pertraction

Critical miscibility temperature
Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior 48 (1990) 281

Cross flow, turbulent
Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145

Crossflow filtration
Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Crossflow microfiltration
Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245

Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85

Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231

Global model of crossflow microfiltration based on hydrodynamic particle diffusion 39 (1988) 157

Concentration polarization in crossflow microfiltration 40 (1989) 173

Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

Studies on colloidal membrane fouling mechanisms in crossflow microfiltration 45 (1989) 3

Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Effect of turbulence on film permeability in cross-flow membrane filtration 48 (1990) 343

Crossflow ultrafiltration
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Crown ethers
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69

Effect of co-anion on DC18C6-mediated Tl^+ transport through an emulsion liquid mebrane 28 (1986) 77

Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1

Selective separation of alkali metal cations by bulk chloroform membranes containing lipophilic crown ether phosphonic acid monoethyl esters 32 (1987) 59

Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

Coupled transport membranes incorporating a polymeric crown ether carboxylic acid 34 (1987) 87

Transport of trivalent lanthanides in a H_2O–$CHCl_3$–H_2O liquid membrane system containing a crown ether carboxylic acid 35 (1988) 339

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Crown-ether mediated transport of amino acids through an immobilized liquid membrane 37 (1988) 287

Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349

Macrocycle-mediated separation of Eu^{2+} from trivalent lanthanide cations in a modified thin-sheet-supported liquid membrane system 50 (1990) 319

Cryptands
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

Crystallinity of membranes
Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Cupferron
Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

Cuprophan membrane
Influence of downstream pressure on the pervaporation of water–tetrahydrofuran mixtures through a regenerated cellulose membrane (Cuprophan) 27 (1986) 217

Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Current efficiency
Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Transport numbers in a perfluorocarboxylate cation-exchange membrane 41 (1989) 143

D

Deacidification
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Dead-end filtration
Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Deborah number
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Decompression
Changes in the permeability of membranes due to their decompression during permeation 43 (1989) 277

Dense layer formation
Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291

Destabilized colloidal suspension
Investigation of the effect of solution destabilization on flux enhancement in filtration 32 (1987) 93

Detoxification
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Dextran deformation
The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311

Dextran fractionation
The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311

Diabetes treatment
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541

Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Dialysis
see also diffusion dialysis, Donnan dialysis, peritoneal dialysis

Separation of an acid and its salt by dialysis through ionic epoxide membranes 31 (1987) 177

Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Dialysis membrane
Determination of the pore radius of regenerated cellulose membranes by a dyeing technique 37 (1988) 101

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Dielectric relaxation
Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71

Differential scanning calorimetry
Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329

Freezing and nonfreezing water in charged membranes 38 (1988) 175

Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

Diffusion
see also carbon dioxide diffusion, chromium ion diffusion, cobalt ion diffusion, coupled diffusion, gas diffusion, hindered diffusion, manganese ion diffusion, nitrogen diffusion, oxygen diffusion, protein diffusion, surface diffusion, thiourea diffusion

Diffusion coefficient determination
A spray technique for the determination of membrane diffusion and distribution coefficients by the time-lag method: evaluated for electrolyte transport through charged and uncharged membranes 26 (1986) 289

A new method for determining membrane diffusion coefficients from their response to regular forced concentration waves 27 (1986) 105

Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Buoyancy correction for oscillatory sorption experiments 31 (1987) 337

Free-volume equations for polymer–penetrant diffusion 40 (1989) 101

Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

A simple method to derive activity profiles and diffusivities of permeants in a membrane from steady state permeation measurements 50 (1990) 1

Diffusion coefficient for solute–carrier complex
Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207

Diffusion dialysis
Application of ion exchange membranes to the recovery of acids by diffusion dialysis 27 (1986) 173

Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273

A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

Diffusion, Fickian
Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165

Diffusion, forced
Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Diffusion, hindered
Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Diffusion, hydrodynamic
Global model of crossflow microfiltration based on hydrodynamic particle diffusion 39 (1988) 157

Diffusion modeling
An experimental modeling method for the analysis of diffusion through thin membranes 35 (1987) 73

Diffusion, non-stationary
Application of network thermodynamics to the computer modelling of nonstationary diffusion through heterogeneous membranes 42 (1989) 1

Unsteady diffusion in barrier membranes 44 (1989) 305

The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67

Diffusion of alcohols
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47

Diffusion of anaesthetics
Diffusion of local anesthetics through liquid membranes 26 (1986) 329

Diffusion of dextrans
Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Diffusion of halogenated hydrocarbons
Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225

Diffusion, shear-induced
Global model of crossflow microfiltration based on hydrodynamic particle diffusion 39 (1988) 157

Diffusion through cylindrical pores
Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167

Diffusion, two-dimensional
Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Diffusive permeation
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31

Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. VI. Experimental results for the water/ethanol system 27 (1986) 13

Diffusive transport resistance
Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

Dinonylnaphthalenesulfonic acid
Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Dioleylphosphate
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223

Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Dissolved oxygen
A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Distillation, membrane-augmented
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Distribution coefficient determination
A spray technique for the determination of membrane diffusion and distribution coefficients by the time-lag method: evaluated for electrolyte transport through charged and uncharged membranes 26 (1986) 289

Donnan dialysis
Simplified flux equation in Donnan dialysis 32 (1987) 251

Selective separation of nickel and copper from a complexing solution by a cation-exchange membrane 37 (1988) 131

Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Donnan salt
Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes 48 (1990) 25

Drinking water, removal of nitrate from
Nitrate-selective anion-exchange membranes 38 (1988) 101

Droplet size distribution
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

Drug delivery
A Laplace transform technique for calculating diffusion time lags 26 (1986) 251

Diffusion of local anesthetics through liquid membranes 26 (1986) 329

Ionic mass transport through a homogeneous membrane in the presence of a uniform electric field 29 (1986) 155

Permeation of hydrocortisone and hydrocortisone 21-alkyl esters through silicone rubber membranes. Relationship to regular solution solubility behavior 30 (1987) 47

Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Effects of environmental conditions on the transport of organic molecules through Nafion membranes 45 (1989) 55

Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Drug delivery, transdermal
An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Transdermal delivery of etidronate (EHDP) in the pig via iontophoresis 35 (1988) 161

Drug permeation
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Drug release
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241

Drying conditions
Silica membranes by the sol–gel process 44 (1989) 289

Drying rate curve
Characterization of ultrafiltration membranes by drying 28 (1986) 209

DSC
see differential scanning calorimetry

Dual membrane assembly, annular
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

Dual mode sorption
Some considerations on the mechanism of gas transport in glassy polymer films 35 (1987) 117

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Further considerations of the mechanism of gas diffusion in glassy polymer films 39 (1988) 89

Analysis of the permeation of CO_2 through glassy polymers 41 (1989) 37

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79

Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

The solubility of hydrogen in glassy poly(vinyl acetate) at elevated pressures 50 (1990) 19

Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207

Dye diffusion
Determination of the pore radius of regenerated cellulose membranes by a dyeing technique 37 (1988) 101

Anion permeability of cellulosic membranes. Part 2. Effect of fixed groups on permeation of co-ions 46 (1989) 299

Dye tracer techniques
Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Dynamically formed membrane
Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103

E

Economic studies
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Membrane oxygen enrichment. II. Economic assessment 29 (1986) 79

Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

The focussing of membrane R&D on areas of commercial potential 36 (1988) 5

Solvent recovery from air 36 (1988) 477

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103

The separation of dissolved organics from water by pervaporation 49 (1990) 253

Effective medium theory
Relative gas permeability of capillary networks with various size distributions 37 (1988) 1

Elastomers
Interactions of organic halides with a polyurethane elastomer 50 (1990) 225

Electric-field driven mass transport
Ionic mass transport through a homogeneous membrane in the presence of a uniform electric field 29 (1986) 155

Electric-potential profile
The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

Electrically conductive membrane
Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Electrically conductive membranes: synthesis and applications 50 (1990) 31

Electrically facilitated transport
Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165

Electrical properties of membranes
Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345

Electrical resistance
Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39

Electrochemical cell
Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243

Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Electrochemical coupling
Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49

Electrochemical potential
A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electrochemistry, preparative
Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23

Electrode
see enzyme electrode, oxygen electrode, membrane electrode, ion-selective electrode, polarographic electrode

Electrode reactions
Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49

Electrodialysis
Improvement of metal recovery by electrodialysis 27 (1986) 143

Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155

Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83

Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193

Application of electrodialysis in the production of malic acid 36 (1988) 489

Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115

Electrokinetic phenomena in amphoteric membranes 41 (1989) 177

Transport depletion for nickel recovery 45 (1989) 65

Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209

Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Electrodiffusion
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117

An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Electroforming
Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Electrokinetic phenomenological coefficients
Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Irreversible thermodynamics of transport across charged membranes. Part III. Efficiency of energy conversion in separation processes with Nafion 120 membrane from phenomenological transport coefficients 30 (1987) 141

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45

Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

Electrolysis
Improvement of metal recovery by electrodialysis 27 (1986) 143

Electron beam grafting
Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Electron microdiffraction
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Electron microscopy
Transformation from mixed micelles to vesicles 41 (1989) 269

Electron paramagnetic resonance
Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Electron spectroscopy for chemical analysis
Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

Electron transport
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

Artificial photosynthesis 33 (1987) 137

Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Electroosmosis
Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195

Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147

Characterization of electric charges in microporous membranes 39 (1988) 79

Electro-osmotic flow measurements 41 (1989) 377

Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

Electrophoresis
Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147

Electroultrafiltration
Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147

Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Emulsion breakage
Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Emulsion liquid membrane
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Subdrop ejection from double emulsion drops in shear flow 26 (1986) 231

Effect of co-anion on DC18C6-mediated Tl^+ transport through an emulsion liquid mebrane 28 (1986) 77

Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1

Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19

The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

On the correlation between bi-ionic potential and the composition of counterions in liquid membranes. I. 34 (1987) 33

Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Mass transfer in a permeation column 36 (1988) 413

Modeling of liquid membrane separation processes 36 (1988) 425

Role of surfactants in the behavior of emulsion liquid membranes–development of new surfactants 38 (1988) 249

An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261

Separation of metal species by emulsion liquid membranes 38 (1988) 281

Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329

Phenol permeation through liquid surfactant membrane–permeation model and effective diffusivity 41 (1989) 197

Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67

Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113

Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Emulsion stability
Subdrop ejection from double emulsion drops in shear flow 26 (1986) 231

Emulsion terminology
Microemulsion versus macroemulsion 45 (1989) 311

Energy-barrier model
Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Energy conversion
Irreversible thermodynamics of transport across charged membranes. Part III. Efficiency of energy conversion in separation processes with Nafion 120 membrane from phenomenological transport coefficients 30 (1987) 141

Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195

Energy production
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181

Enricher recycle
A parametric study of recycle membrane separators 39 (1988) 143

Enzymatic conversion of fumarate
Application of electrodialysis in the production of malic acid 36 (1988) 489

Enzymatic hydrolysis
Membrane reactor in fatty acid production 36 (1988) 525

Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87

Enzyme electrode
Membrane based sensors: a review 50 (1990) 141

Enzyme kinetics
Capillary membrane reactors: performance and applications 27 (1986) 253

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Epidermis
Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Epithelium
Electro-osmotic flow measurements 41 (1989) 377

Network synthesis of the epithelial transport system 41 (1989) 393

Epoxide membrane
Separation of an acid and its salt by dialysis through ionic epoxide membranes 31 (1987) 177

Equilibration time
Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119

Equipotential surface pore model
Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Equipotential volume
Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Error analysis
A note on the realistic estimation of experimental time lag errors 31 (1987) 103

Erythrocyte membrane
Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345

ESCA
see electron spectroscopy for chemical analysis

***Escherichia coli*, cell lysate**
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Etching solution regeneration
Supported liquid membranes for copper transport 44 (1989) 273

Ethanol production
Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Etidronate
An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Transdermal delivery of etidronate (EHDP) in the pig via iontophoresis 35 (1988) 161

Europium permeation
Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

Evaporation step in membrane casting
Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

Extraction column
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47

F

Facilitated diffusion
On the limits of facilitated diffusion 43 (1989) 149

Facilitated transport
see also carrier-mediated transport

Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

Facilitation factor
Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13

Fatty acid production
Membrane reactor in fatty acid production 36 (1988) 525

Fermentation, continuous
Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Fermentation of fumarate to malate
Application of electrodialysis in the production of malic acid 36 (1988) 489

Fiberoptic probe
Membrane based sensors: a review 50 (1990) 141

Field effect transistor
Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291

Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

Film-diffusion control
Film control and membrane control in charged membranes 36 (1988) 497

Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

Film theory, Ultrafiltration of monodisperse solutes
Charge effects in the cross-flow filtration of colloids and particulates 43 (1989) 69

Filter cake
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245

Global model of crossflow microfiltration based on hydrodynamic particle diffusion 39 (1988) 157

The hydrodynamic resistance of filter cakes 43 (1989) 19

Finite-difference method
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

Finite-element method
Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

Fixed carrier
Coupled transport membranes incorporating a polymeric crown ether carboxylic acid 34 (1987) 87

On the limits of facilitated diffusion 43 (1989) 149

Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207

Fixed charge density
Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

Transport studies with parchment supported model membranes 46 (1989) 185

Flocculation
Investigation of the effect of solution destabilization on flux enhancement in filtration 32 (1987) 93

Effect of turbulence on film permeability in cross-flow membrane filtration 48 (1990) 343

Flocculation theory
Modeling fouling mechanisms in protein ultrafiltration 27 (1986) 181

Flory–Huggins interaction parameter
Interactions of organic halides with a polyurethane elastomer 50 (1990) 225

Flory–Huggins theory
Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235

Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

On the prediction of separation factor and permeability in the separation of binary mixtures by pervaporation 46 (1989) 335

Flory model
Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Flowing liquid membrane
Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115

Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269

Flow permeability method
Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119

Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Fluid dynamics
Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

Fluidized-bed reactor
Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Fluidized particles
Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331

Fluid mechanics
Fluid flow in an idealized spiral wound membrane module 28 (1986) 191

Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Fluid mechanics in membrane filtration: recent developments 40 (1989) 123

Fluorinated polymers
Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

Fluorine-containing membrane
Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Flux decline
Effects of diffusion and osmosis on flux decline during ultrafiltration with total rejection in an unstirred batch cell 50 (1990) 177

Flux equation
Simplified flux equation in Donnan dialysis 32 (1987) 251

Flux/rejection relationship
Linear relationships between rejection and flux in pressure-driven membrane separation processes 43 (1989) 307

Food treatment
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Transport phenomena in membrane distillation 33 (1987) 285

Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103

Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115

Ultrafiltration of rice wine for removal of bacteria 44 (1989) 245

Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103

Fouling
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17

Modeling fouling mechanisms in protein ultrafiltration 27 (1986) 181

Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Membrane fouling in a constant-flux ultrafiltration cell 34 (1987) 267

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Anion exchange membranes consisting of poly(vinylpyridine) and poly(vinylbenzyl chloride) for Cr/Fe redox batteries 36 (1988) 535

Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

Fluid mechanics in membrane filtration: recent developments 40 (1989) 123

Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189

Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

Fouling of microporous membranes in biological applications 40 (1989) 231

Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115

Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

Studies on colloidal membrane fouling mechanisms in crossflow microfiltration 45 (1989) 3

Free volume
An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid : base solvent complexes 46 (1989) 135

Free volume theory
Free-volume equations for polymer–penetrant diffusion 40 (1989) 101

Response to comments by Vrentas, Duda and Ling 40 (1989) 109

On the prediction of separation factor and permeability in the separation of binary mixtures by pervaporation 46 (1989) 335

Freundlich isotherm
Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

Frictional effects
Frictional and osmotic effects in the pressure-driven membrane separation of dilute solutions 50 (1990) 131

Friction coefficient
Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Friction factors
Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Fruit juice concentratioin
Transport phenomena in membrane distillation 33 (1987) 285

Fuel consumption reduction
Membrane oxygen enrichment. I. Demonstration of membrane oxygen enrichment for natural gas comubstion 29 (1986) 69

Functional groups, introduction of
Salt permeation through cationic membranes with quaternary ammonium groups of different alkyl chain lengths 26 (1986) 263

Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

G

Galactosidase
Capillary membrane reactors: performance and applications 27 (1986) 253

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Gamma-ray irradiation
Pervaporation of trace chlorinated organics from water through irradiated polyethylene membrane 47 (1989) 183

Gas adsorption
Heat of transport of dilute adsorbable gases in single pores and model porous media as a function of pore structure 29 (1986) 177

Gas chromatography
A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Gas diffusion
Polyurethane membrane for gas fractionation 27 (1986) 203

Changes in the permeability of membranes due to their decompression during permeation 43 (1989) 277

Gas membrane
Separating acetic acid from liquids 50 (1990) 51

Gas permeation
Polyurethane membrane for gas fractionation 27 (1986) 203

Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Gas permeation measurement
A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343

Gas separation
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Gas separation membrane
The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Gas separations
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143

Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41

Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Polyurethane membrane for gas fractionation 27 (1986) 203

Simplified calculation of gas-permeation hollow-fiber modules for the separation of binary mixtures 28 (1986) 319

Electrochemical coupling in carrier-mediated membrane transport 29 (1986) 49

A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31

Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227

Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

Calculation of the membrane area required for gas separations 32 (1987) 185

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Removal of organic vapors from air by selective membrane permeation 36 (1988) 363

A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

Solvent recovery from air 36 (1988) 477

Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Gas permeation through composite membranes 37 (1988) 81

A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Ternary gas separation using two different membranes 39 (1988) 61

A parametric study of recycle membrane separators 39 (1988) 143

Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

SO_2 separation from gaseous mixtures by membranes 41 (1989) 49

Polymeric membranes based on bisphenol-A for gas separations 42 (1989) 69

Introduction of specific gas selectivity to porous glass membranes by treatment with tetraethoxysilane 42 (1989) 109

Comparative study of two-membrane permeators for gas separations 42 (1989) 147

Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197

Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103

A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Changes in the permeability of membranes due to their decompression during permeation 43 (1989) 277

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115

Low temperature plasma for the preparation of separation membranes 46 (1989) 1

Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid : base solvent complexes 46 (1989) 135

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

The effect of degree of acetylation on gas sorption and transport behavior in cellulose acetate 47 (1989) 301

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

Gas separations, effect of temperature
Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Gas separations: Naphtha recovery
Separation of organic vapors from air 31 (1987) 259

Gas solubility
Polyurethane membrane for gas fractionation 27 (1986) 203

Gas sorption
Some considerations on the mechanism of gas transport in glassy polymer films 35 (1987) 117

Further considerations of the mechanism of gas diffusion in glassy polymer films 39 (1988) 89

Gas transport
Some considerations on the mechanism of gas transport in glassy polymer films 35 (1987) 117

Further considerations of the mechanism of gas diffusion in glassy polymer films 39 (1988) 89

Free-volume equations for polymer–penetrant diffusion 40 (1989) 101

Response to comments by Vrentas, Duda and Ling 40 (1989) 109

The unsteady-state measurement of polymer membrane permeability to dissolved oxygen 43 (1989) 177

Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229

Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79

Gastric mucosa
Electro-osmotic flow measurements 41 (1989) 377

Gelatin
Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Gel exclusion chromatography
Transformation from mixed micelles to vesicles 41 (1989) 269

Gel layer rheology
Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97

Gel permeation chromatography
Characterization of ultrafiltration membranes: cut-off determination by gel permeation chromatography 41 (1989) 55

Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17

Selective ultrafiltration 50 (1990) 109

Gel polarization
Selective ultrafiltration 50 (1990) 109

Gel polarization model
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

The hydrodynamic resistance of filter cakes 43 (1989) 19

Fractionation and concentration of lignosulphonates by ultrafiltration 47 (1989) 107

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Genetics
Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Glass membrane
Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Introduction of specific gas selectivity to porous glass membranes by treatment with tetraethoxysilane 42 (1989) 109

Glass, porous
Separation of protein mixtures by Bioran porous glass membranes 36 (1988) 55

Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267

Glass transition temperature
Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189

Glassy polymer
Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Some considerations on the mechanism of gas transport in glassy polymer films 35 (1987) 117

Selection of polymers for pervaporation membranes 36 (1988) 315

Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Further considerations of the mechanism of gas diffusion in glassy polymer films 39 (1988) 89

Response to comments by Vrentas, Duda and Ling 40 (1989) 109

Analysis of the permeation of CO_2 through glassy polymers 41 (1989) 37

Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Characterization of CO_2-induced conditioning of polycarbonate films using penetrants with different solubilities 43 (1989) 103

Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79

Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Glassy polymers
Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

The solubility of hydrogen in glassy poly(vinyl acetate) at elevated pressures 50 (1990) 19

Glucose-responsive system
Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Glucose oxidase
Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Glucose permeation
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Glucose sensor
Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

Glucose transport
Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Glueckauf model
Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Gold extraction
Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295

Goldman constant-field approximation
Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117

Goretex
see polytetrafluoroethylene

Graduate course
Instruction in membrane separation processes 44 (1989) 265

Graft copolymers
Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Grafted membrane
Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327

Mobility and self-diffusion coefficient of sulphate co-ion in a grafted cation-exchange membrane 32 (1987) 175

Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301

Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155

Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Grafted polymer
Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Grafting, photochemical
Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Graft polymerization, plasma-induced
Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Graft polymerization, radiation-induced
Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Gramicidin
Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Grape must demineralization
Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115

Gravimetry
Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235

Gravitational effects
Study of volume flux as a function of angle between membrane orientation and gravity 26 (1986) 115

Growth temperature
Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

H

Halocarbon liquid membrane
The influence of halocarbon solvent on macrocycle-mediated cation transport through liquid membranes 28 (1986) 69

Heat of transport
Heat of transport of dilute adsorbable gases in single pores and model porous media as a function of pore structure 29 (1986) 177

Heat transfer
Heat and mass transfer in membrane distillation 33 (1987) 299

Heat treatment
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Height of transfer unit
Hollow fiber solvent extraction: performances and design 50 (1990) 153

Hematocrit
Controlling factors in hemofiltration 44 (1989) 35

Hemodiafiltration
Solute transport characteristics in hemodiafiltration 39 (1988) 99

Hemodialysis
Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

Innovative extracorporeal membrane systems 44 (1989) 89

Hemodialysis membrane
Morphological studies of cellulose acetate hollow fiber membranes 37 (1988) 113

Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Hemofiltration
Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

Controlling factors in hemofiltration 44 (1989) 35

Innovative extracorporeal membrane systems 44 (1989) 89

Hemolysis
Innovative processes for membrane plasma separation 44 (1989) 115

Hemoperfusion
Innovative extracorporeal membrane systems 44 (1989) 89

Herbicides
The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Heterogeneous polymer blends
Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229

Hill graphs
Integration of membrane equations in the presence of sources and directional biases: on the consistent definition of kinetic potentials in diffusion–reaction–convection coupling and related transport problems 35 (1988) 271

Hindered transport
Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167

Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

History of membrane technology
The evolution of ultrathin synthetic membranes 33 (1987) 121

Hole free volume
Free-volume equations for polymer–penetrant diffusion 40 (1989) 101

Hollow-fiber-contained liquid membrane
A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Hollow fiber module
Simplified calculation of gas-permeation hollow-fiber modules for the separation of binary mixtures 28 (1986) 319

Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309

Hollow fibers
Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Hollow-fiber membrane systems as suppressors in ion chromatography 31 (1987) 249

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311

Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

Artificial gills 42 (1989) 273

Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17

The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid : base solvent complexes 46 (1989) 135

Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

A simplified intrinsic rejection coefficient model for capillary hollow fibers 49 (1990) 241

Separating acetic acid from liquids 50 (1990) 51

Hollow fiber solvent extraction: performances and design 50 (1990) 153

Hybridoma cells
Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323

Hybrid processes
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Hydration water
Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79

Hydraulic permeability
Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143

Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45

Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Hydraulic resistance
Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

Hydrochloric acid transport
Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213

Hydrocortisone
Permeation of hydrocortisone and hydrocortisone 21-alkyl esters through silicone rubber membranes. Relationship to regular solution solubility behavior 30 (1987) 47

Hydrodynamic demixing
Concentration polarization in crossflow microfiltration 40 (1989) 173

Hydrodynamic diffusion
see diffusion, hydrodynamic

Hydrodynamic effects
A hydrodynamic study of the retention of polyethylene glycols by cellulose acetate membranes in the absence and presence of proteins 30 (1987) 259

Hydrodynamic permeability
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Hydrodynamic resistance
The hydrodynamic resistance of filter cakes 43 (1989) 19

Hydrodynamic theory
Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167

Hydrofluoric acid recovery
Application of ion exchange membranes to the recovery of acids by diffusion dialysis 27 (1986) 173

Hydrogels
Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior 48 (1990) 281

Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Hydrogels, thermally reversible
Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Hydrogen bonding
Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79

Hydrogen diffusion
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Hydrogen ion-coupled transport
Proton-ionizable crown compounds. 5. Macrocycle-mediated proton-coupled transport of alkali metal cations in H_2O–CH_2Cl_2–H_2O liquid membrane systems 31 (1987) 1

Hydrogen ion permeation
Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Hydrogen ion transport
Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Hydrogen permeation
Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Hydrogen sorption
The solubility of hydrogen in glassy poly(vinyl acetate) at elevated pressures 50 (1990) 19

Hydrogen sulfide transport
Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Hydrolysis of triglycerides
Membrane reactor in fatty acid production 36 (1988) 525

Hydrolysis of urea
Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Hydrophilic membrane
Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Hydrophilization
Hydrophilization of polyethylene membranes 50 (1990) 97

Hydrophobicity measurements
Hydrophobicity measurements of microfiltration and ultrafiltration membranes 47 (1989) 333

Hydrophobic membrane
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Hydroquinone
A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287

Hypercholesterolemia
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Hyperfiltration
see reverse osmosis

I

Image analysis
Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Immersion precipitation
Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Further comments on the diffusion equations for membrane formation 43 (1989) 319

Immobilized antibody
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281

Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

Immobilized bacteria
Sucrose bioconversion in membrane reactors 41 (1989) 225

Immobilized cells
Capillary membrane reactors: performance and applications 27 (1986) 253

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Immobilized enzyme
Unsteady-state behaviour of enzyme membrane reactors with substrate rejection 27 (1986) 263

Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243

Membrane reactor in fatty acid production 36 (1988) 525

Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Sucrose bioconversion in membrane reactors 41 (1989) 225

Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291

Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Nylon membrane formation in biocatalyst microencapsulation: physicochemical modelling 50 (1990) 249

Immobilized interfaces
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Immobilized Langerhans islets
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541

Immobilized liquid membrane
see also supported liquid membrane

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Crown-ether mediated transport of amino acids through an immobilized liquid membrane 37 (1988) 287

Immunoassay
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281

Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291

Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

Immunoglobulin G
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281

Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

Inclusion bodies
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Industrial separations
Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463

Separation of metal species by emulsion liquid membranes 38 (1988) 281

Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Infrared spectroscopy
Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131

***In situ* electrolytic membrane restoration**
Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

***In situ* intermittent electrolytic membrane cleaning**
Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

Insulin release
Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Insulin transport
The bio-artificial endocrine pancreas: modelling and performance evaluation 36 (1988) 541

Interfacial polymerization
The evolution of ultrathin synthetic membranes 33 (1987) 121

Interfacial properties
Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Interfacial tension
Some observations on the stability of supported liquid membranes 33 (1987) 19

Interpenetrating polymer network
Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Structure of ion exchange membranes 49 (1990) 121

***In vitro* studies**
An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

***In vivo* studies**
Transdermal delivery of etidronate (EHDP) in the pig via iontophoresis 35 (1988) 161

Iodide transport
Uphill transport of iodide ions through a membrane of poly(vinyl acetate)–iodine–iodide complex 44 (1989) 233

Iodine recovery
Liquid film pertraction. Recovery of iodine from iodine-containing aqueous solutions 37 (1988) 277

Ion-selective electrode
Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233

A polymeric electrode for ionic surfactants 36 (1988) 511

Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157

Membrane based sensors: a review 50 (1990) 141

Ion-selective membrane
Fouling of ion-selective membranes during electrodialysis of grape must 41 (1989) 115

Weak acid–strong base type charge-mosaic membrane. I. Carboxylic acid–quaternary amine system 43 (1989) 205

Ion channels
Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Ion chromatography
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

Hollow-fiber membrane systems as suppressors in ion chromatography 31 (1987) 249

Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Ion enhanced metallization
Electrically conductive membranes: synthesis and applications 50 (1990) 31

Ion exchange
A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

Ion exchange equilibrium
see also anion exchange membrane, cation exchange membrane

Ion-exchange equilibria involving complex formation in aqueous solution 34 (1987) 127

Ion exchange membrane
Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155

Hollow-fiber membrane systems as suppressors in ion chromatography 31 (1987) 249

Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155

Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Effects of environmental conditions on the transport of organic molecules through Nafion membranes 45 (1989) 55

Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79

Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions 48 (1990) 291

Structure of ion exchange membranes 49 (1990) 121

Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Ion exchange membrane, amphoteric
Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37

Effect of ionic charge on the electrical properties of an amphoteric ion exchange membrane 32 (1987) 281

Electrokinetic phenomena in amphoteric membranes 41 (1989) 177

Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes 48 (1990) 25

Ion exchange membrane, effect of counterion on permselectivity
The permselectivity of ion-exchange membranes for non-electrolyte liquid mixtures. II. The effect of counterions (separation of alcohol/water mixtures with Nafion membranes) 28 (1986) 109

Ion exchange membrane, treatment with hydrogen peroxide
Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89

Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247

Ion exchange resin
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

Ionic mobility
Determination of self-diffusion coefficients from conductivity measurements in perfluorinated ionomer membranes 50 (1990) 325

Ion mobility
Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125

Ionophores, Antigenic
Antibody response of polymer membrane electrodes incorporating antigenic ionophores 30 (1987) 313

Ionophores, micellar
Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Ionophores, noncyclic polyether
Synthesis and properties of noncyclic polyether compounds. XV. Noncyclic polyether carriers exhibiting potassium-ion-selective transport through liquid membranes: their structures and cation selectivity 35 (1987) 91

Ionophore stability
Silacrown ionophores 32 (1987) 83

Ion radius
Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155

Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37

Ion selectivity
On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Iontophoresis
Ionic mass transport through a homogeneous membrane in the presence of a uniform electric field 29 (1986) 155

An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Transdermal delivery of etidronate (EHDP) in the pig via iontophoresis 35 (1988) 161

Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Ion transport
Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37

Ionic mass transport through a homogeneous membrane in the presence of a uniform electric field 29 (1986) 155

Kinetic effects on ion transport at the membrane–solution interface 30 (1987) 75

Membrane potential and permeation of salts across bipolar membranes 32 (1987) 267

Effect of ionic charge on the electrical properties of an amphoteric ion exchange membrane 32 (1987) 281

Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193

Film control and membrane control in charged membranes 36 (1988) 497

Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Uphill transport of iodide ions through a membrane of poly(vinyl acetate)–iodine–iodide complex 44 (1989) 233

AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Ion / water interactions
Irreversible thermodynamics of transport across charged membranes. Part II. Ion-water interactions in permeation of alkali 30 (1987) 125

ISFET biosensor
Evaluation of an albumin-based, spin-coated, enzyme-immobilized membrane for an ISFET glucose sensor by computer simulation 43 (1989) 291

Isothermal diffusion-convection
The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67

Isothermal transport
Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Iterative methods
Iterative solution of multicomponent permeator model equations 48 (1990) 115

K

Kedem–Katchalski equations
Membrane transport system modeled by network thermodynamics 41 (1989) 3

Knudsen diffusion
Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

L

Laminated systems
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241

Langmuir–Blodgett layers
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63

Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

The effect of Langmuir–Blodgett layer pretreatment on the performance of ultrafiltration membranes 43 (1989) 187

Lanthanides
Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Lanthanide transport
Transport of trivalent lanthanides in a H_2O–$CHCl_3$–H_2O liquid membrane system containing a crown ether carboxylic acid 35 (1988) 339

Carrier-mediated transport of rare earth ions through cellulose triacetate membranes 42 (1989) 47

Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349

Macrocycle-mediated separation of Eu^{2+} from trivalent lanthanide cations in a modified thin-sheet-supported liquid membrane system 50 (1990) 319

Laplace transform
A Laplace transform technique for calculating diffusion time lags 26 (1986) 251

Leaching of radioactive wastes
Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Lead extraction
Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

Lecithin
Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Lectin-conjugated lipid vesicles
Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Lewis cell
Kinetic study of the extraction of copper(II) by di(2-ethylhexyl)phosphoric acid in a Lewis-type cell 37 (1988) 181

Ligand-accelerated extraction
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

LIGA process
Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Light-induced transport
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313

Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

Artificial photosynthesis 33 (1987) 137

Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151

Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Light-responsive membrane
Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233

Light-scattering
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

Light scattering
Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Titania and alumina ceramic membranes 39 (1988) 243

Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Transformation from mixed micelles to vesicles 41 (1989) 269

Lignosulphonate fractionation
Fractionation and concentration of lignosulphonates by ultrafiltration 47 (1989) 107

Limiting current density
Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193

Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Lipase
Membrane reactor in fatty acid production 36 (1988) 525

Lipid-containing membrane
Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Lipid membrane
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223

The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Lipid multibarrier channel model
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

Lipophilic-ion-selective electrode
Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233

Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157

Liposome
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Liposomes
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

Potential of membrane-mimetic polymers in membrane technology 30 (1987) 323

Artificial photosynthesis 33 (1987) 137

Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Analysis of the carbohydrate-binding specificity of lectin-conjugated lipid vesicles which interact with polysaccharide fragments 41 (1989) 249

Transformation from mixed micelles to vesicles 41 (1989) 269

On the mechanism of vesicle formation 50 (1990) 215

Liquid crystal
Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Liquid film pertraction
Liquid film pertraction. Recovery of iodine from iodine-containing aqueous solutions 37 (1988) 277

Liquid–liquid demixing
Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming system by means of pulse-induced critical scattering (PICS) 42 (1989) 27

Liquid–liquid extraction
Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309

Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

Kinetic study of the extraction of copper(II) by di(2-ethylhexyl)phosphoric acid in a Lewis-type cell 37 (1988) 181

The calculation of permeation rates through supported liquid membranes based on the kinetics of liquid–liquid extraction 39 (1988) 43

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Liquid membrane
see also chloroform liquid membrane, cholesterol liquid membrane, emulsion liquid membrane, flowing liquid membrane, halocarbon liquid membrane, poly(ethylene glycol) liquid membrane, supported liquid membrane, toluene liquid membrane

Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. I. Batch test of a mixer–settler 32 (1987) 31

Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47

A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131

Liquid membrane permeator
A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Liquid membrane stability
Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97

Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Some observations on the stability of supported liquid membranes 33 (1987) 19

Liquid membrane thickness
A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Liver failure treatment
Innovative extracorporeal membrane systems 44 (1989) 89

LIX 54
Supported liquid membranes for copper transport 44 (1989) 273

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

LIX 64N
Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67

Low-density lipoprotein
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Lower critical solution temperature
Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

M

Macrocycles
see cryptands, crown ethers, silacrown ethers

Magnesia impregnation
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Magnetic susceptibility measurement
Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Malic acid production
Application of electrodialysis in the production of malic acid 36 (1988) 489

Manganese ion diffusion
Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Mass spectrometry
see also secondary ion mass spectrometry

Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

Mass transfer coefficient determination
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Mass transfer correlation
Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145

Mass transfer in carrier-mediated transport
Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

Mass transfer in immersion precipitation
Further comments on the diffusion equations for membrane formation 43 (1989) 319

Mass transfer resistance model
A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

Mass transport
Total mass transport through a nonhomogeneous membrane 29 (1986) 333

Matrix device
Modelling of insulin release from a glucose-responsive degradable polymeric system 48 (1990) 33

Matrix, solid
Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

McCabe–Thiele diagram
A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

Mechanical equilibrium equation
Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Mechanoreceptor analog
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223

Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Medical analysis
Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Melt spinning
Morphological studies of cellulose acetate hollow fiber membranes 37 (1988) 113

Membrane
see also alumina membrane, aluminium oxide membrane, amphoteric membrane, anisotropic membrane, barrier membrane, bilayer lipid membrane, biological membrane, biomedical membrane, bipolar membrane, capillary membrane, cellulose acetate membrane, cellulose membrane, ceramic membrane, charge-mosaic membrane, composite membrane, dialysis membrane, electrically conductive membrane, emulsion liquid membrane, epoxide membrane, gas membrane, glass membrane, hemodialysis membrane, hydrophobic membrane, immersion precipitation membrane, lipid-containing membrane, metal composite membrane, metal membrane, mica membrane, microporous membrane, multi-layer membrane, muscle cell membrane, nitrocellulose membrane, perfluorocarboxylate membrane, perfluorosulfonate membrane, phase inversion membrane, pH-sensitive membrane, silica membrane, silver membrane, stereocomplex membrane, sulfonated membrane, titania membrane, tubular membrane, ultrafiltration membrane, urinary bladder membrane, vascular membrane, vesicle membrane

Membrane-diffusion control
Film control and membrane control in charged membranes 36 (1988) 497

Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

Membrane area calculation
Calculation of the membrane area required for gas separations 32 (1987) 185

Membrane capacitance
The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71

Membrane cell
Evaluating membrane cell e.m.f.'s from different schemes of integration of the relevant Nernstian equations 34 (1987) 345

Membrane characterization
Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Characterization of ultrafiltration membranes by drying 28 (1986) 209

Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Production and characterization of homogeneous porous polymer films 36 (1988) 79

Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259

Molecularly-bonded metal microfiltration membrane 39 (1988) 273

Polyamide microcapsules for controlled release. I. Characterization of the membranes 40 (1989) 1

Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

A surface science investigation of composite membranes 45 (1989) 225

Characterization of Nafion membranes by transmission electron microscopy 45 (1989) 261

Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Hydrophobicity measurements of microfiltration and ultrafiltration membranes 47 (1989) 333

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Membrane cleaning

Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

Membrane conductance

The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89

Effect of ionic charge on the electrical properties of an amphoteric ion exchange membrane 32 (1987) 281

Electrokinetic phenomena in amphoteric membranes 41 (1989) 177

Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247

Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes 48 (1990) 25

Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71

Membrane conductivity
Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313

Membrane distillation
Membrane distillation in the treatment of aqueous solutions 33 (1987) 277

Transport phenomena in membrane distillation 33 (1987) 285

Heat and mass transfer in membrane distillation 33 (1987) 299

Wetting criteria for the applicability of membrane distillation 33 (1987) 315

Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199

Membranes and modules for transmembrane distillation 39 (1988) 25

Separation of liquid mixtures by membrane distillation 41 (1989) 211

Membrane electrode
Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233

Antibody response of polymer membrane electrodes incorporating antigenic ionophores 30 (1987) 313

A polymeric electrode for ionic surfactants 36 (1988) 511

Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157

Membrane formation
Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming system by means of pulse-induced critical scattering (PICS) 42 (1989) 27

Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

Nylon membrane formation in biocatalyst microencapsulation: physicochemical modelling 50 (1990) 249

Membrane module
Fluid flow in an idealized spiral wound membrane module 28 (1986) 191

Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Membranes and modules for transmembrane distillation 39 (1988) 25

Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

Membrane technology applied to donor plasmapheresis 44 (1989) 131

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

The separation of dissolved organics from water by pervaporation 49 (1990) 253

Hollow fiber solvent extraction: performances and design 50 (1990) 153

Membrane module, corrugated plate
Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243

Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

Membrane orientation
Study of volume flux as a function of angle between membrane orientation and gravity 26 (1986) 115

Membrane polarity
Polymer membrane as a reaction field. III. Effect of membrane polarity on selective separation of a water–ethanol binary mixture through synthetic polymer membranes 26 (1986) 107

Membrane potential
On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Monitoring of cell potentials with an electrode sensitive to lipophilic ions 27 (1986) 233

Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109

Membrane potential and permeation of salts across bipolar membranes 32 (1987) 267

Effect of ionic charge on the electrical properties of an amphoteric ion exchange membrane 32 (1987) 281

On the correlation between bi-ionic potential and the composition of counterions in liquid membranes. I. 34 (1987) 33

A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

Evaluating membrane cell e.m.f.'s from different schemes of integration of the relevant Nernstian equations 34 (1987) 345

Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203

Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67

Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Membrane preparation
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47

The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267

Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321

Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Production and characterization of homogeneous porous polymer films 36 (1988) 79

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Liquid separation with fluorinated polymer membranes 36 (1988) 343

Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267

Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Pore structures of sol–gel silica membranes 39 (1988) 213

Microporous alumina membranes 39 (1988) 221

Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155

Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Preparation of microporous membranes from cation exchange membranes 42 (1989) 233

Silica membranes by the sol–gel process 44 (1989) 289

Low temperature plasma for the preparation of separation membranes 46 (1989) 1

A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Electrically conductive membranes: synthesis and applications 50 (1990) 31

Membrane preparation, photochemical
Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Membrane reactor
Capillary membrane reactors: performance and applications 27 (1986) 253

Unsteady-state behaviour of enzyme membrane reactors with substrate rejection 27 (1986) 263

Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243

Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Membrane reactor in fatty acid production 36 (1988) 525

Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Sucrose bioconversion in membrane reactors 41 (1989) 225

Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Innovative extracorporeal membrane systems 44 (1989) 89

Membrane resistance
Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Studies on colloidal membrane fouling mechanisms in crossflow microfiltration 45 (1989) 3

AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

Membrane resistance oscillation
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Membrane / solution interface
Kinetic effects on ion transport at the membrane–solution interface 30 (1987) 75

Membrane structure
Heteroporous sieving membranes: Rigorous bounds on pore-size distributions and sieving curves 42 (1989) 87

Study of microporous membrane structure by image analysis 46 (1989) 81

Structure of ion exchange membranes 49 (1990) 121

Membrane thickness
A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131

Membrane toxicity
The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Mercury extraction
Competitive transport of the toxic heavy metals lead, mercury and cadmium by macrocyclic ligands 32 (1987) 159

Mercury intrusion
Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Mercury transport
Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113

Metacrylic acid graft
Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Metal composite membrane
A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Metallized membrane
Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Metal membrane
Molecularly-bonded metal microfiltration membrane 39 (1988) 273

Metal precipitate
Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227

Metals recovery
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303

Improvement of metal recovery by electrodialysis 27 (1986) 143

Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Mica membrane
Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Barrier membranes 38 (1988) 161

Unsteady diffusion in barrier membranes 44 (1989) 305

Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Micellar-enhanced ultrafiltration
Removal of n-alcohols from aqueous streams using micellar-enhanced ultrafiltration 30 (1987) 67

Micelles
Transformation from mixed micelles to vesicles 41 (1989) 269

Micelles, reversed
Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Microbial
see bacterial

Microcapsules
Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Polyamide microcapsules for controlled release. I. Characterization of the membranes 40 (1989) 1

Polyamide microcapsules for controlled release. II. Release characteristics of the microcapsules 40 (1989) 27

Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Animal cell culture engineering using alginate polycation microcapsules of controlled membrane molecular weight cut-off 41 (1989) 323

Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Nylon membrane formation in biocatalyst microencapsulation: physicochemical modelling 50 (1990) 249

Microfiltration
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Studies on secondary layer formation and its characterization during cross-flow filtration of microbial cells 34 (1987) 245

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Concentration polarization in crossflow microfiltration 40 (1989) 173

Hydrophilization of polyethylene membranes 50 (1990) 97

Microfiltration combined with ion exchange
Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

Microfiltration membrane
Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321

Molecularly-bonded metal microfiltration membrane 39 (1988) 273

Microfiltration of dispersions
Electrically enhanced separation processes: the basis of *in situ* intermittent electrolytic membrane cleaning (IIEMC) and *in situ* electrolytic membrane restoration (IEMR) 40 (1989) 219

Microporous membrane
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119

On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309

Conductance behaviour of a microporous membrane and the application of absolute reaction rate theory 31 (1987) 89

Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

Characterization of electric charges in microporous membranes 39 (1988) 79

Microporous alumina membranes 39 (1988) 221

Fouling of microporous membranes in biological applications 40 (1989) 231

Preparation of microporous membranes from cation exchange membranes 42 (1989) 233

Artificial gills 42 (1989) 273

Studies of the conductances of potassium halides, halates, and nitrate in aqueous solutions in a microporous membrane and the application of absolute reaction rate theory 45 (1989) 247

Milk concentration
Transport phenomena in membrane distillation 33 (1987) 285

Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103

Millipore filter
Sustained resistance oscillation of Millipore DOPH model membrane with calcium ions 32 (1987) 223

Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Millipore membrane
Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119

On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Mineral membrane
Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Mixed gas transport
Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79

Mixer–settler
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. I. Batch test of a mixer–settler 32 (1987) 31

Mixing efficiency
Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243

Modeling, experimental
An experimental modeling method for the analysis of diffusion through thin membranes 35 (1987) 73

Model studies
A continuous membrane column model incorporating axial diffusion terms 26 (1986) 143

Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Theoretical study of the transport processes occurring during the evaporation step in asymmetric membrane casting 29 (1986) 11

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153

Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

Membrane potential and permeation of salts across bipolar membranes 32 (1987) 267

An analysis of catalyzed facilitated transport 33 (1987) 51

Ultrafiltration: separation enhancement by counter-current cascading 33 (1987) 97

Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Analysis of membrane permeation from a deposited droplet 34 (1987) 317

Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Relative permeability of parallel and serial capillary models with various radius distributions 35 (1987) 21

Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125

Hydrodynamic theory for the hindered transport of flexible macromolecules in porous membranes 35 (1988) 167

Membrane modules: comparison of different configurations using fluid mechanics 35 (1988) 245

Computer simulation of ultrafiltration processes 36 (1988) 201

Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231

Mass transfer in a permeation column 36 (1988) 413

Modeling of liquid membrane separation processes 36 (1988) 425

Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445

Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Barrier membranes 38 (1988) 161

An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261

Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Solute transport characteristics in hemodiafiltration 39 (1988) 99

A parametric study of recycle membrane separators 39 (1988) 143

Concentration polarization in crossflow microfiltration 40 (1989) 173

Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189

Membrane transport system modeled by network thermodynamics 41 (1989) 3

Phenol permeation through liquid surfactant membrane–permeation model and effective diffusivity 41 (1989) 197

Network synthesis of the epithelial transport system 41 (1989) 393

Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13

Theoretical modification of the surface force–pore flow model for reverse osmosis transport 42 (1989) 119

The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67

On the prediction of separation factor and permeability in the separation of binary mixtures by pervaporation 46 (1989) 335

Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67

Iterative solution of multicomponent permeator model equations 48 (1990) 115

Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes 48 (1990) 127

A theoretical analysis of Donnan dialysis across charged porous membranes 48 (1990) 155

Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37

Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

A simplified intrinsic rejection coefficient model for capillary hollow fibers 49 (1990) 241

Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Moment theory
Heteroporous sieving membranes: Rigorous bounds on pore-size distributions and sieving curves 42 (1989) 87

Monensin
Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109

Monolayer adsorption
Physical properties of sodium carboxymethyl cellulose molecules adsorbed on a polyacrylonitrile ultrafiltration membrane 38 (1988) 127

Mössbauer spectroscopy
Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Multi-layer membrane
Application of network thermodynamics to the computer modelling of nonstationary diffusion through heterogeneous membranes 42 (1989) 1

Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Multicomponent effects
Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Muscle cell membrane
Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Muscle contraction
Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

N

Nafion membrane
see perfluorosulfonate membrane

Naphtha dearomatization
Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Natural gas combustion
Membrane oxygen enrichment. I. Demonstration of membrane oxygen enrichment for natural gas comubstion 29 (1986) 69

Nernst equations
Evaluating membrane cell e.m.f.'s from different schemes of integration of the relevant Nernstian equations 34 (1987) 345

Nernst–Planck equation
A finite-difference method for numerical solution of the steady-state Nernst-Planck , equations with non-zero convection and electric current density 28 (1986) 139

Kinetic effects on ion transport at the membrane–solution interface 30 (1987) 75

Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Film control and membrane control in charged membranes 36 (1988) 497

Network thermodynamics
A new method for determining membrane diffusion coefficients from their response to regular forced concentration waves 27 (1986) 105

Integration of membrane equations in the presence of sources and directional biases: on the consistent definition of kinetic potentials in diffusion–reaction–convection coupling and related transport problems 35 (1988) 271

Membrane transport system modeled by network thermodynamics 41 (1989) 3

Network synthesis of the epithelial transport system 41 (1989) 393

Application of network thermodynamics to the computer modelling of nonstationary diffusion through heterogeneous membranes 42 (1989) 1

The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67

Neutral membrane process
see transport depletion

Neutron scattering
Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57

Nickel extraction
Ligand-accelerated liquid membrane extraction of metal ions 26 (1986) 129

Nickel recovery
Transport depletion for nickel recovery 45 (1989) 65

Nickel–sodium exchange
Ion-exchange equilibria involving complex formation in aqueous solution 34 (1987) 127

Nitrate transport
Nitrate-selective anion-exchange membranes 38 (1988) 101

Nitric acid recovery
Application of ion exchange membranes to the recovery of acids by diffusion dialysis 27 (1986) 173

Nitrocellulose
The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Nitrocellulose membrane, lipid-containing
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Nitrogen adsorption method
The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Nitrogen permeation
Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41

Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Permeability to O_2 and N_2 of poly(vinyl alcohol) membranes swollen with aqueous solutions of nonvolatile substances 31 (1987) 147

An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Relative gas permeability of capillary networks with various size distributions 37 (1988) 1

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189

Nitrogen sorption
Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Relative permeability of parallel and serial capillary models with various radius distributions 35 (1987) 21

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Titania and alumina ceramic membranes 39 (1988) 243

Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

Nitrophenol extraction
Liquid–liquid extractions with microporous hollow fibers 29 (1986) 309

Nitrosyl chloride decomposition
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313

NMR spectroscopy
Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

NMR spin-lattice relaxation
Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Noble gas permeation
Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Noble gas sorption
Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

Non-equilibrium thermodynamics
see thermodynamics of irreversible processes

Non-Fickian transport
see Case II transport

Non-ideal systems
Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229

Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes 48 (1990) 127

Non-isothermal transport
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211

Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229

Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Non-linear transport
Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165

Non-stationary diffusion
see diffusion, non-stationary

Non-uniformity, spatial
Enhancement of membrane transport by spatial nonuniformity 28 (1986) 165

Total mass transport through a nonhomogeneous membrane 29 (1986) 333

Nuclepore membrane
see track-etched membrane

Nylon
see polyamide

Nylon industry
Selective separation of cyclohexane–cyclohexanone–cyclohexanol mixtures through poly(*N*-vinylpyrrolidone-co-acrylonitrile) membrane 39 (1988) 113

O

Onsager reciprocity relations
Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229

Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Onsager's reciprocity relations
Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Optical microscopy
Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Structural changes and oscillation of electrical resistance in a millipore DOPH model membrane 42 (1989) 57

Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Optical techniques
Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Oral drug administration
Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Organic-ion-selective electrode
A polymeric electrode for ionic surfactants 36 (1988) 511

Orthogonal collocation
Effect of diffusion on the model of a capillary gas permeator 32 (1987) 139

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Oscillations, forced
A new method for determining membrane diffusion coefficients from their response to regular forced concentration waves 27 (1986) 105

Oscillatory sorption
Buoyancy correction for oscillatory sorption experiments 31 (1987) 337

Osmosis, pressure-retarded
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181

Osmotic permeability
Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143

Osmotic pressure
Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97

Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307

Frictional and osmotic effects in the pressure-driven membrane separation of dilute solutions 50 (1990) 131

Effects of diffusion and osmosis on flux decline during ultrafiltration with total rejection in an unstirred batch cell 50 (1990) 177

Osmotic pressure decay
The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation 48 (1990) 67

Osmotic pressure method
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Osmotic pressure model
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Osmotic pump
Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Oxygen carrier
Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Oxygen diffusion
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Oxygen electrode
The unsteady-state measurement of polymer membrane permeability to dissolved oxygen 43 (1989) 177

Oxygen enrichment
Membrane oxygen enrichment. I. Demonstration of membrane oxygen enrichment for natural gas comubstion 29 (1986) 69

Membrane oxygen enrichment. II. Economic assessment 29 (1986) 79

Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31

Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Oxygen permeation
A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

Permeability to O_2 and N_2 of poly(vinyl alcohol) membranes swollen with aqueous solutions of nonvolatile substances 31 (1987) 147

An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Measurement of transport parameters in polymer films: flux overshoot produced by a step change in temperature 40 (1989) 87

A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343

Artificial gills 42 (1989) 273

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

The unsteady-state measurement of polymer membrane permeability to dissolved oxygen 43 (1989) 177

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

Oxygen sorption
Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Oxygen transport
Analysis of facilitated transport with fixed site carrier membranes 50 (1990) 207

P

Packaging materials
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

PAGE
see polyacrylamide gel electrophoresis

Palladium composite
A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Parchment support
Transport studies with parchment supported model membranes 46 (1989) 185

Partition coefficient
Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Partitioning of ions
Ionic partition equilibria of a simple organic electrolyte in chemically modified charged cellulosic membranes 38 (1988) 39

Paste method
Structure of ion exchange membranes 49 (1990) 121

Penicillium
Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

Pentachlorophenol
The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Percolation theory
AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Perfluorocarboxylate membrane
Transport numbers in a perfluorocarboxylate cation-exchange membrane 41 (1989) 143

Gas permeabilities of perfluorocarboxylate membranes in various ionic forms 49 (1990) 85

Perfluoro polymers
Liquid separation with fluorinated polymer membranes 36 (1988) 343

Perfluorosulfonate membrane
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

The permselectivity of ion-exchange membranes for non-electrolyte liquid mixtures. II. The effect of counterions (separation of alcohol/water mixtures with Nafion membranes) 28 (1986) 109

Transport of aniline, chloroaniline, nitroaniline, and urea through perfluorosulfonated ionomer membranes 28 (1986) 311

Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Irreversible thermodynamics of transport across charged membranes. Part II. Ion-water interactions in permeation of alkali 30 (1987) 125

Irreversible thermodynamics of transport across charged membranes. Part III. Efficiency of energy conversion in separation processes with Nafion 120 membrane from phenomenological transport coefficients 30 (1987) 141

Microstructure studies of perfluorocarboxylated ionomer membranes 30 (1987) 171

Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227

Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313

Dependence on salt concentration of bi-ionic potential across polystyrene sulfonic-acid-type membranes 38 (1988) 27

Freezing and nonfreezing water in charged membranes 38 (1988) 175

Photoreduction of methylene blue in Nafion membrane 41 (1989) 163

Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

AC impedance investigation of the kinetics of ion transport in Nafion perfluorosulfonic membranes 45 (1989) 37

Effects of environmental conditions on the transport of organic molecules through Nafion membranes 45 (1989) 55

Characterization of Nafion membranes by transmission electron microscopy 45 (1989) 261

Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57

Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Determination of self-diffusion coefficients from conductivity measurements in perfluorinated ionomer membranes 50 (1990) 325

Peritoneal dialysis
Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Peritoneum
Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203

Permeability coefficient
A new colorimetric method for the determination of the "dissolved" oxygen permeability coefficients of polymeric membranes 26 (1986) 199

Permeability determination
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343

Permeability, effective
Formulation of dual-mode mixed gas transport in glassy polymers 48 (1990) 79

Permeation
see also acetone permeation, alkane permeation, alkene permeation, aniline permeation, azobenzene permeation, carbon dioxide permeation, carbon monoxide permeation, copper permeation, ion permeation, creatinine permeation, drug permeation, glucose permeation, hydrogen permeation, nitrogen

permeation, noble gas permeation, oxygen permeation, steroid permeation, urea permeation, water permeation, zinc ion permeation

Permeation, steady state
A simple method to derive activity profiles and diffusivities of permeants in a membrane from steady state permeation measurements 50 (1990) 1

Permeation cell design
Boundary layer effects on membrane permeation rates 27 (1986) 359

Permeation column
Mass transfer in a permeation column 36 (1988) 413

Modeling of liquid membrane separation processes 36 (1988) 425

Permeation from a deposited droplet
Analysis of membrane permeation from a deposited droplet 34 (1987) 317

Permeation of alkali hydroxides
Irreversible thermodynamics of transport across charged membranes. Part II. Ion-water interactions in permeation of alkali 30 (1987) 125

Permeation of alkali metal ions
Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Permeation of flavour constituents
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

Permeation of halogenated hydrocarbons
Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225

Permeation of hydrocarbons
An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261

Permeation of nitrogen
Effects of nonvolatile additives on permeabilities of O_2 and N_2 through water-swollen poly(vinyl alcohol) membranes 35 (1988) 311

Permeation of oxygen
Effects of nonvolatile additives on permeabilities of O_2 and N_2 through water-swollen poly(vinyl alcohol) membranes 35 (1988) 311

Permeation of phenol
Phenol permeation through liquid surfactant membrane–permeation model and effective diffusivity 41 (1989) 197

Permeation of quaternary ammonium bromides
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Permeation of sodium bromide
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Permeation of sodium salts
Salt permeation through cationic membranes with quaternary ammonium groups of different alkyl chain lengths 26 (1986) 263

Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67

Permeation rate
Boundary layer effects on membrane permeation rates 27 (1986) 359

Permeation stages
Iterative solution of multicomponent permeator model equations 48 (1990) 115

Permeator, series configuration
Ternary gas separation using two different membranes 39 (1988) 61

Comparative study of two-membrane permeators for gas separations 42 (1989) 147

Permion
Transport properties of Permion™ membranes in concentrated alkaline solutions. I. Potassium hydroxide solution 42 (1989) 243

Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Permselectivity
The permselectivity of ion-exchange membranes for non-electrolyte liquid mixtures. II. The effect of counterions (separation of alcohol/water mixtures with Nafion membranes) 28 (1986) 109

Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37

Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203

Perstraction
Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Pertraction
sdee carrier-mediated extraction

Pervaporation
Polymer membrane as a reaction field. III. Effect of membrane polarity on selective separation of a water–ethanol binary mixture through synthetic polymer membranes 26 (1986) 107

Influence of downstream pressure on the pervaporation of water–tetrahydrofuran mixtures through a regenerated cellulose membrane (Cuprophan) 27 (1986) 217

Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11

Separation of C_8 aromatic isomers by pervaporation through commercial polymer films 30 (1987) 111

Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Highly water selective cellulosic polyelectrolyte membranes for the pervaporation of alcohol–water mixtures 32 (1987) 207

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125

Selection of polymers for pervaporation membranes 36 (1988) 315

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Liquid separation with fluorinated polymer membranes 36 (1988) 343

Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445

Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Selective separation of cyclohexane–cyclohexanone–cyclohexanol mixtures through poly(*N*-vinylpyrrolidone-co-acrylonitrile) membrane 39 (1988) 113

Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57

On the prediction of separation factor and permeability in the separation of binary mixtures by pervaporation 46 (1989) 335

Pervaporation of trace chlorinated organics from water through irradiated polyethylene membrane 47 (1989) 183

Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

The role of coupling in pervaporation 47 (1989) 277

Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane 48 (1990) 55

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

A study of organic compound pervaporation through silicone rubber 49 (1990) 171

The separation of dissolved organics from water by pervaporation 49 (1990) 253

Pervaporation, counter-ion effect
Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Pervaporation plant
Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463

Pervaporation, temperature effect
Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

pH-sensitive membrane
Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Pharmacokinetics
A Laplace transform technique for calculating diffusion time lags 26 (1986) 251

Phase inversion membrane
Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

The evolution of ultrathin synthetic membranes 33 (1987) 121

Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming system by means of pulse-induced critical scattering (PICS) 42 (1989) 27

Further comments on the diffusion equations for membrane formation 43 (1989) 319

Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29

The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid : base solvent complexes 46 (1989) 135

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Phase separation theory
Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior 48 (1990) 281

Phospate ion transport
Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Phosphatidylcholine
Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Effect of gramicidin on the ion permeability of liposomes in the presence of mixed electrolytes 44 (1989) 253

Adsorption of anti-human C-reactive protein immunoglobulin on phospholipid-coated microcapsules 45 (1989) 155

A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Phospholipids
Transformation from mixed micelles to vesicles 41 (1989) 269

On the mechanism of vesicle formation 50 (1990) 215

Phosphorylated hollow fibers
Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

Photochemically reactive probes
Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Photochemical reactions
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Photochemical release
Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Photochemical synthesis
Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Photodiffusion membrane
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313

Photoionization
Atmospheric-pressure ionization mass spectrometric and photoionization techniques for evaluation of barrier film permeation properties 29 (1986) 1

Photon correlation spectroscopy
Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Photoreduction
Photoreduction of methylene blue in Nafion membrane 41 (1989) 163

Photorupture
Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Photosensitizer
Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Photosynthesis
Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Artificial photosynthesis 33 (1987) 137

Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151

Photosystem I
Light-induced charge separation across the photosynthetic membrane: a proposed structure for the photosystem I reaction center 33 (1987) 151

Piezoelectric device
Determination of microbes and immunoglobulins using a piezoelectric biosensor 41 (1989) 281

Piezoelectric sensor
Membrane based sensors: a review 50 (1990) 141

Pilotplant studies
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47

Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Mass transfer in a permeation column 36 (1988) 413

Separation of metal species by emulsion liquid membranes 38 (1988) 281

Hollow fiber solvent extraction: performances and design 50 (1990) 153

Plant design
A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

Modeling of liquid membrane separation processes 36 (1988) 425

Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445

Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463

Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

Plant operation
Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463

Plasma deposition
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Tailoring of ultrafiltration membranes by plasma treatment and their application for the desalination and concentration of water-soluble organic substances 36 (1988) 207

Plasma exchange
Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Plasma flux increase
Innovative processes for membrane plasma separation 44 (1989) 115

Plasmapheresis
Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

Separation of protein mixtures by Bioran porous glass membranes 36 (1988) 55

Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Membrane plasma separation and the on-line treatment of plasma by membranes 44 (1989) 55

Innovative processes for membrane plasma separation 44 (1989) 115

Membrane technology applied to donor plasmapheresis 44 (1989) 131

Plasma polymers
Plasma polymerization of hexafluoropropene/methane mixtures and composite membranes for gas separations 27 (1986) 63

The evolution of ultrathin synthetic membranes 33 (1987) 121

Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Gas separation membranes made by plasma polymerization of perfluorobenzene/CF_4 and pentafluorobenzene/CF_4 mixtures 38 (1988) 85

Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Low temperature plasma for the preparation of separation membranes 46 (1989) 1

Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157

Plasma pretreatment
Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Plasma treatment
Low temperature plasma for the preparation of separation membranes 46 (1989) 1

Plasticization
Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63

Plasticizing
Permeation behavior of carbon dioxide–methane mixtures in cellulose acetate membranes 42 (1989) 197

Platelet adhesion
Determination and kinetics of platelet adhesion onto material surfaces 41 (1989) 315

Plating bath regeneration
Supported liquid membranes for copper transport 44 (1989) 273

Poisson–Boltzmann equation
Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Poisson equation
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117

Kinetic effects on ion transport at the membrane–solution interface 30 (1987) 75

Film control and membrane control in charged membranes 36 (1988) 497

The electric-potential profile in ion-exchange membrane pores 44 (1989) 197

Polarization, electrical
Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Polarization sieving model
Selective ultrafiltration 50 (1990) 109

Polarized layer
The hydrodynamic resistance of filter cakes 43 (1989) 19

Polarographic electrode
Membrane based sensors: a review 50 (1990) 141

Poly(α-amino acid)
Preparation and drug-releasing behaviour of copoly(α-amino acid) membranes 27 (1986) 241

Poly(2-hydroxyethyl methacrylate)
Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Poly(1-trimethylsilyl-1-propyne)
An investigation of the high gas permeability of poly(1-trimethylsilyl-1-propyne) 34 (1987) 5

Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne] 48 (1990) 321

Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

Polyacrylamide gel electrophoresis
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Poly(acrylic acid)
Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition 48 (1990) 309

Poly(acrylic acid) graft
Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Polyacrylonitrile
Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Polyacrylontrile
Physical properties of sodium carboxymethyl cellulose molecules adsorbed on a polyacrylonitrile ultrafiltration membrane 38 (1988) 127

Polyallylamine
A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Polyamide
On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Characterization of ultrafiltration membranes by drying 28 (1986) 209

Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321

Water and salt transport through two types of polyamide composite membranes 36 (1988) 297

Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Polyamide microcapsules for controlled release. I. Characterization of the membranes 40 (1989) 1

Polyamide microcapsules for controlled release. II. Release characteristics of the microcapsules 40 (1989) 27

Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

Polyamide microcapsules for controlled release. V. Photochemical release 40 (1989) 67

Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243

Preparation and characterization of lipid membranes coated on polyamide microcapsules 50 (1990) 85

Nylon membrane formation in biocatalyst microencapsulation: physicochemical modelling 50 (1990) 249

Polyaniline
Electrically conductive membranes: synthesis and applications 50 (1990) 31

Poly(bromophenylene oxide dimethylphosphonate ester)
Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Polybutadiene
Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113

Polycarbonate
On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

A new technique for the measurement of multicomponent gas transport through polymeric films 29 (1986) 229

The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Polycarbonates, substituted
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Polydimethylsiloxane
Selection of polymers for pervaporation membranes 36 (1988) 315

Removal of organic vapors from air by selective membrane permeation 36 (1988) 363

Solvent recovery from air 36 (1988) 477

Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267

Polyetherimide
Asymmetric polyetherimide membrane for helium separation 27 (1986) 215

Polyethersulfone
Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Penetrant-induced plasticization and gas permeation in glassy polymers 37 (1988) 63

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Polyethylene
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31

Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235

Sorption of benzene and n-hexane in polyethylene 35 (1988) 207

Barrier membranes; concepts revisited 43 (1989)

Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Hydrophilization of polyethylene membranes 50 (1990) 97

Poly(ethylene-co-vinyl alcohol)
Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267

Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Poly(ethylene glycol) liquid membrane
Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Polyethylene, irradiated
Pervaporation of trace chlorinated organics from water through irradiated polyethylene membrane 47 (1989) 183

Poly(ethylene terephthalate)
Permeation of gases through poly(ethylene terephthalate) membranes metallized with palladium 35 (1988) 291

Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Analysis of the permeation of CO_2 through glassy polymers 41 (1989) 37

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Polyethylenimine
Modification of the transport properties of ion exchange membranes. XII. Ionic composition in cation exchange membranes with and without a cationic polyelectrolyte layer at equilibrium and during electrodialysis 45 (1989) 209

Poly(ethyl methacrylate)
Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

Poly(hydroxyethyl methacrylate)
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Polyimide
Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Gas permeability and permselectivity in polyimides based on 3,3′,4,4′-biphenyltetracarboxylic dianhydride 47 (1989) 203

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

Polyimide, silicon-containing
Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Poly(methacrylic acid) graft
Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327

Poly(methyl methacrylate)
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Effects of CO_2 exposure on gas transport properties of glassy polymers 32 (1987) 195

Determination and kinetics of platelet adhesion onto material surfaces 41 (1989) 315

Poly(*N*-isopropylacrylamide)
Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Poly(phenylene oxide)
The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

Transport of gases in unmodified and aryl-brominated 2,6-dimethyl-1,4-poly(phenylene oxide) 35 (1987) 103

Poly(phenylene oxide), bromination of
A note on the effects of mono- and di-bromination on the transport properties of poly(2,6-dimethylphenylene oxide) 48 (1990) 333

Polyphosphazenes
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47

Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Polypropylene
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41

Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287

Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

Membrane distillation in the treatment of aqueous solutions 33 (1987) 277

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Membranes for biomedical applications: utilization of plasma polymerization for dimensionally stable hydrophilic membranes 41 (1989) 305

Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Hollow fiber solvent extraction: performances and design 50 (1990) 153

Polypyrrole
Electrically conductive membranes: synthesis and applications 50 (1990) 31

Polysilane
Gas separation membranes made by plasma polymerization of mixtures of silanes and fluoromethane 34 (1987) 297

Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Polysiloxane
Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas permeation through siloxane–anodic aluminum oxide composite membranes at temperatures up to 200 °C 44 (1989) 151

Relationships between structure, permeability and glass transition temperature of oligodimethylsiloxanyl substituted polymers 50 (1990) 189

Polystyrene blends
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Poly(styrene-co-divinylbenzene)
Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Tubular interpolymer ion-exchange membranes. Donnan dialysis through strong-base membranes 49 (1990) 55

Polystyrene grafts
Mobility and self-diffusion coefficient of sulphate co-ion in a grafted cation-exchange membrane 32 (1987) 175

Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301

Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229

Poly(styrene sulfonate)
Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Poly(styrenesulfonic acid)
The effect of temperature on thermoosmosis 28 (1986) 183

Dependence on salt concentration of bi-ionic potential across polystyrene sulfonic-acid-type membranes 38 (1988) 27

Freezing and nonfreezing water in charged membranes 38 (1988) 175

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91

Poly(styrenesulfuric acid)
A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Polysulfonamide
Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Polysulfone
Capillary membrane reactors: performance and applications 27 (1986) 253

Characterization of ultrafiltration membranes by drying 28 (1986) 209

Effect of antiplasticization on selectivity and productivity of gas separation membranes 30 (1987) 1

Experimental analysis of a cross-flow membrane bioreactor with entrapped whole cells: influence of transmembrane pressure and substrate feed concentration on reactor performance 35 (1988) 325

Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

Gas permeation through composite membranes 37 (1988) 81

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Nitrate-selective anion-exchange membranes 38 (1988) 101

The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311

Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17

The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid : base solvent complexes 46 (1989) 135

Polysulfone, sulfonated
Development of sulfonated polysulfone membranes for redox flow batteries 38 (1988) 71

Polysulfone membranes
Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

Polytetrafluoroethylene
Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Transport phenomena in membrane distillation 33 (1987) 285

Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199

Study of microporous membrane structure by image analysis 46 (1989) 81

Poly(tetrafluoroethylene-co-hexafluoropropylene)
Permeation of dichloromethane, nitroethane and tetrachloroethylene through poly(hexafluoropropylene-co-tetrafluoroethylene) 34 (1987) 225

Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Polytriazole
Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29

Polyurethane
Polyurethane membrane for gas fractionation 27 (1986) 203

Vapor and gas permeability of polyurethane membranes. Part I. Structure–property relationship 49 (1990) 341

Interactions of organic halides with a polyurethane elastomer 50 (1990) 225

Poly(vinyl acetate)
Uphill transport of iodide ions through a membrane of poly(vinyl acetate)–iodine–iodide complex 44 (1989) 233

The solubility of hydrogen in glassy poly(vinyl acetate) at elevated pressures 50 (1990) 19

Poly(vinyl alcohol)
Permeability to O_2 and N_2 of poly(vinyl alcohol) membranes swollen with aqueous solutions of nonvolatile substances 31 (1987) 147

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Effects of nonvolatile additives on permeabilities of O_2 and N_2 through water-swollen poly(vinyl alcohol) membranes 35 (1988) 311

Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

A new apparatus and procedure for gas permeability measurements on water-swollen gel membranes 40 (1989) 343

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67

Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Polyvinylbutyral
Micro-FET biosensors using polyvinylbutyral membrane 41 (1989) 291

Poly(vinyl chloride)
Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Poly(vinyl fluoride)
Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Poly(vinylidene fluoride)
Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Preparation and properties of novel environment-sensitive membranes prepared by graft polymerization onto a porous membranes 38 (1988) 185

Diffusion in the system poly(vinylidene fluoride)–water–dimethylformamide at 20 °C. Implications for the membrane casting process 45 (1989) 299

Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Poly(vinylpyridine-co-acrylonitrile)
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51

Transport of amino acids through synthetic polymer membranes containing pyridinium cationic charge sites 32 (1987) 235

Poly(vinylpyrrolidone-co-acrylontrile)
Selective separation of cyclohexane–cyclohexanone–cyclohexanol mixtures through poly(*N*-vinylpyrrolidone-co-acrylonitrile) membrane 39 (1988) 113

Pore geometry
Theoretical modification of the surface force–pore flow model for reverse osmosis transport 42 (1989) 119

Pore narrowing
Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Pore radius
Determination of the pore radius of regenerated cellulose membranes by a dyeing technique 37 (1988) 101

Pores, constricted
Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Pores, single model
Heat of transport of dilute adsorbable gases in single pores and model porous media as a function of pore structure 29 (1986) 177

Pore size
Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155

Diffusion through composite membranes: a two-dimensional analysis 27 (1986) 301

Some observations on the stability of supported liquid membranes 33 (1987) 19

Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199

Annealing effect in porous cellulose acetate membranes 34 (1987) 283

The use of pore parameters for monitoring process and property variations in gas separation membranes 38 (1988) 237

Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Pore size distribution
Measurement of active pore size distribution of microporous membranes. A new approach 27 (1986) 119

Determining pore size distributions of ultrafiltration membranes by solute sieving. Mathematical limitations 31 (1987) 289

Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Annealing effect in porous cellulose acetate membranes 34 (1987) 283

Relative permeability of parallel and serial capillary models with various radius distributions 35 (1987) 21

Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Relative gas permeability of capillary networks with various size distributions 37 (1988) 1

Titania and alumina ceramic membranes 39 (1988) 243

Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259

Heteroporous sieving membranes: Rigorous bounds on pore-size distributions and sieving curves 42 (1989) 87

Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Membrane pore structure analysis via NMR spin-lattice relaxation experiments 46 (1989) 167

Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325

Pore structure
Heat of transport of dilute adsorbable gases in single pores and model porous media as a function of pore structure 29 (1986) 177

Pore structures of sol–gel silica membranes 39 (1988) 213

Pore volume distribution
Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329

Porometer
Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259

Porosity
Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143

Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Anion permeability of cellulosic membranes. Part 2. Effect of fixed groups on permeation of co-ions 46 (1989) 299

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Porosity measurement
On the effect of the porosities of microporous membranes on their ionic selectivities 27 (1986) 131

Permoporometric study on ultrafiltration membranes 41 (1989) 69

Porous glass capillaries
Separation of protein mixtures by Bioran porous glass membranes 36 (1988) 55

Porous glass membrane
see glass membrane

Porphyrin
Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Artificial photosynthesis 33 (1987) 137

Potentiostat, four-electrode
Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Pressure, effect on permeation
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31

Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. VI. Experimental results for the water/ethanol system 27 (1986) 13

Influence of downstream pressure on the pervaporation of water–tetrahydrofuran mixtures through a regenerated cellulose membrane (Cuprophan) 27 (1986) 217

Mechanism of gas permeation through glassy polymer films 37 (1988) 165

Changes in the permeability of membranes due to their decompression during permeation 43 (1989) 277

PRO
see osmosis, pressure-retarded

Process control
A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

Protein adsorption
see adsorption of proteins

Protein arrays
Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Protein association
Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307

Protein charge
Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1

Protein diffusion
Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Protein recovery
Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87

Protein rejection
see rejection of proteins

Proton
see hydrogen ion

Proton transport
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

Pulping waste
Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83

Pulse-induced critical scattering
Investigation of liquid–liquid demixing and aggregate formation in a membrane-forming system by means of pulse-induced critical scattering (PICS) 42 (1989) 27

Purification of pharmaceuticals
Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

Pyridyl compounds
Electrodialytic properties of cation-exchange membranes in the presence of *N*-dodecyl pyridyl compounds 28 (1986) 151

Q

Q-cycle
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

Quantitative image analysis
Study of microporous membrane structure by image analysis 46 (1989) 81

Quantum mechanical studies
Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79

Quartz crystal microbalance
Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Quasi-elastic light scattering
Component mobility analysis in the membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 31 (1987) 273

Quaternary ammonium groups
Salt permeation through cationic membranes with quaternary ammonium groups of different alkyl chain lengths 26 (1986) 263

Quench period
Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Queuing theory
Computer simulation of ultrafiltration processes 36 (1988) 201

R

Radioactive tracer techniques
Studies on the structural, kinetic and thermodynamic parameters of cellulose acetate membranes 29 (1986) 143

Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Ion transport across carboxylic–polyethylene membranes in sodium hydroxide and potassium hydroxide solutions 46 (1989) 125

Transport of trivalent lanthanides through a surfactant membrane containing an ionizable macrocyclic polyether 46 (1989) 349

Radioactive waste
Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Radiowave conductivity measurements
Electrical parameters of erythrocyte membranes deduced from radiowave conductivity measurements 41 (1989) 345

Rare earths
see lanthanides

Rayleigh–Taylor analysis
Study of volume flux as a function of angle between membrane orientation and gravity 26 (1986) 115

Reactive groups
Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Tailoring of ultrafiltration membranes by plasma treatment and their application for the desalination and concentration of water-soluble organic substances 36 (1988) 207

Phosphorylated hollow fibers synthesized by radiation grafting and cross-linking 43 (1989) 131

On the limits of facilitated diffusion 43 (1989) 149

Recombinant DNA
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Rectification
Preparation of a single bipolar membrane by plasma-induced graft polymerization 43 (1989) 165

Recycle permeators
A parametric study of recycle membrane separators 39 (1988) 143

Iterative solution of multicomponent permeator model equations 48 (1990) 115

Recycle stripper
A parametric study of recycle membrane separators 39 (1988) 143

Redox couple
A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Redox flow battery
Development of sulfonated polysulfone membranes for redox flow batteries 38 (1988) 71

Redox reaction, transmembrane
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Reduction of dibromo compounds
Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23

Reflection coefficient
Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229

Reformate fractionation
Separation of C_8 aromatic isomers by pervaporation through commercial polymer films 30 (1987) 111

Refractive index
Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Rejection coefficient
Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17

A simplified intrinsic rejection coefficient model for capillary hollow fibers 49 (1990) 241

Rejection of enzyme substrates
Unsteady-state behaviour of enzyme membrane reactors with substrate rejection 27 (1986) 263

Rejection of poly(ethylene glycol)
Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Rejection of proteins
Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307

Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Relaxation of polymer chains
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition 48 (1990) 309

Release characteristics
Polyamide microcapsules for controlled release. II. Release characteristics of the microcapsules 40 (1989) 27

Polyamide microcapsules for controlled release. III. Spontaneous release of azobenzene 40 (1989) 43

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

Release rate measurements
Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Renal failure
Membrane phenomena and mass transfer kinetics in peritoneal dialysis 44 (1989) 5

Retention curve
Characterization of ultrafiltration membranes: cut-off determination by gel permeation chromatography 41 (1989) 55

Selective ultrafiltration 50 (1990) 109

Reverse osmosis
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63

Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Membrane separations in ethanol recovery: an analysis of two applications of hyperfiltration 30 (1987) 289

Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105

Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301

Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233

Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243

Theoretical modification of the surface force–pore flow model for reverse osmosis transport 42 (1989) 119

Linear relationships between rejection and flux in pressure-driven membrane separation processes 43 (1989) 307

Reverse osmosis of milk with thin-film composite membranes 48 (1990) 103

Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis 48 (1990) 231

Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions 48 (1990) 291

Dielectric properties of cellulose acetate reverse osmosis membranes in aqueous salt solutions 50 (1990) 71

Reverse osmosis membrane
Properties of ultrathin membranes prepared from ethylene–vinyl alcohol copolymers 29 (1986) 267

Measurement and interpretation of concentration potentials and AC-DC resistances of annealed cellulose acetate membranes 43 (1989) 39

Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243

Reverse transport
Facilitated and reverse transport of electrolytes through an asymmetric membrane 27 (1986) 285

Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109

Rice wine
Ultrafiltration of rice wine for removal of bacteria 44 (1989) 245

Rony's extent of separation
Comparative study of two-membrane permeators for gas separations 42 (1989) 147

Rotating cylindrical membrane
Innovative processes for membrane plasma separation 44 (1989) 115

Membrane technology applied to donor plasmapheresis 44 (1989) 131

Rotating diffusion cell
Donnan dialysis with Nafion membranes: application of a rotating diffusion cell 43 (1989) 5

Rotating disc support
A study on the production of thin liquid and polymeric membranes on the surface of a rotating disc 47 (1989) 131

Rubber–polystyrene copolymers
Gas transport in heterogeneous polymer blends. IV. Natural rubber-g-polystyrene 43 (1989) 229

Rutherford backscattering spectroscopy
A surface science investigation of composite membranes 45 (1989) 225

S

S-layers
Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Salinity gradient
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions 48 (1990) 181

Salt precipitation
Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Salt rejection
Structure–property relationship in a thin film composite reverse osmosis membrane 46 (1989) 243

Salt removal
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Sampling from liquid streams
A study of organic compound pervaporation through silicone rubber 49 (1990) 171

Sarcoplasmic reticulum
Regulation of the sarcoplasmic reticulum calcium permeability by sulfhydryl oxidation and reduction 33 (1987) 241

SAXS
small angle X-ray scattering

Scanning electron microscopy
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291

Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

Preparation of asymmetric microfiltration membranes and modification of their proerties by chemical treatment 36 (1988) 257

Morphological studies of cellulose acetate hollow fiber membranes 37 (1988) 113

Effect of coagulation conditions on structure and properties of membranes from aliphatic polyamides 38 (1988) 113

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Titania and alumina ceramic membranes 39 (1988) 243

Molecularly-bonded metal microfiltration membrane 39 (1988) 273

Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155

A surface science investigation of composite membranes 45 (1989) 225

Study of microporous membrane structure by image analysis 46 (1989) 81

Morphology of microporous poly(vinylidene fluoride) membranes studied by gas permeation and scanning electron microscopy 50 (1990) 299

Schiff base formation
Novel liquid membrane transport system for tryptophan 47 (1989) 53

Secondary ion mass spectrometry
Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

Self-diffusion coefficient
Determination of self-diffusion coefficients from conductivity measurements in perfluorinated ionomer membranes 50 (1990) 325

Selemion membrane
see epoxide membrane

Self-diffusion of sulfate
Mobility and self-diffusion coefficient of sulphate co-ion in a grafted cation-exchange membrane 32 (1987) 175

Separation, pressure-driven
Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233

Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Frictional and osmotic effects in the pressure-driven membrane separation of dilute solutions 50 (1990) 131

Separation (general)
Linear relationships between rejection and flux in pressure-driven membrane separation processes 43 (1989) 307

Separation of acetonitrile / water mixtures
Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105

Separation of acid and salt
Separation of an acid and its salt by dialysis through ionic epoxide membranes 31 (1987) 177

Separation of alcohols
Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Separation of aromatics from kerosine
Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19

Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329

Separation of aromatic substances
Separation of C_8 aromatic isomers by pervaporation through commercial polymer films 30 (1987) 111

Separation of azeotropic mixtures
Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. V. Experimental results for the hexane/heptane (ideal) and toluene/ethanol (nonideal) systems 26 (1986) 31

Separation of benzene / cyclohexane mixtures
Separation of liquid benzene/cyclohexane mixtures by perstraction and pervaporation 37 (1988) 205

Separation of benzene / n-heptane mixtures
Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Separation of binary mixtures
Simplified calculation of gas-permeation hollow-fiber modules for the separation of binary mixtures 28 (1986) 319

Separation of carbon dioxide and nitrogen
Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41

Gas permeation through composite membranes 37 (1988) 81

A two-dimensional analysis of membrane thickness in a hollow-fiber-contained liquid membrane permeator 43 (1989) 259

Separation of carbon dioxide / helium / nitrogen mixtures
Ternary gas separation using two different membranes 39 (1988) 61

Separation of carbon monoxide and hydrogen
Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

Separation of cobalt and nickel
A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339

Separation of copper and nickel
Selective separation of nickel and copper from a complexing solution by a cation-exchange membrane 37 (1988) 131

Separation of copper and zinc
Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Separation of cyclic hydrocarbons
Selective separation of cyclohexane–cyclohexanone–cyclohexanol mixtures through poly(*N*-vinylpyrrolidone-co-acrylonitrile) membrane 39 (1988) 113

Separation of dissolved organics from water
The separation of dissolved organics from water by pervaporation 49 (1990) 253

Separation of enzymes from cell broth
Fouling of microporous membranes in biological applications 40 (1989) 231

Separation of enzymes from cell homogenate
Dynamic filtration of microbial suspensions using an axially rotating filter 36 (1988) 85

Separation of erbium and yttrium
Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Separation of ethane and ethylene
Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115

Separation of ethanol / water mixtures
Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Separation of gallium and aluminium
Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

Separation of glucose and ovalbumin
Ultrafiltration: separation enhancement by counter-current cascading 33 (1987) 97

Separation of helium and nitrogen
Asymmetric polyetherimide membrane for helium separation 27 (1986) 215

Separation of helium and oxygen
Introduction of specific gas selectivity to porous glass membranes by treatment with tetraethoxysilane 42 (1989) 109

Comparative study of two-membrane permeators for gas separations 42 (1989) 147

Separation of helium / hydrocarbon mixtures
Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Separation of hydrogen and nitrogen
A composite palladium and porous aluminum oxide membrane for hydrogen gas separation 37 (1988) 193

Gas separation mechanisms in microporous modified γ-Al_2O_3 membranes 39 (1988) 285

Separation of hydrogen sulfide and methane
Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Separation of inclusion bodies from soluble protein
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate 48 (1990) 263

Separation of isomeric mixtures
Separation of C_8 aromatic isomers by pervaporation through commercial polymer films 30 (1987) 111

Separation of macromolecules from blood
Membrane plasma protein fractionation for low-density lipoprotein apheresis: comparison of two hollow fiber modules and two filtration systems 36 (1988) 101

Separation and fractionation of plasma by double-filtration technique 44 (1989) 47

Membrane plasma separation and the on-line treatment of plasma by membranes 44 (1989) 55

Separation of metal ions
A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339

Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Separation of metal ions: Chromium ion diffusion
Separation of Cr ions from Co and Mn ions by poly(bis(phenoxy)phosphazene) membranes 33 (1987) 181

Separation of methane and carbon dioxide
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Separation of gaseous mixtures of CO_2 and CH_4 using a composite microporous glass membrane on ceramic tubing 39 (1988) 301

Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

Polymeric membranes based on bisphenol-A for gas separations 42 (1989) 69

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

A note on the effects of mono- and di-bromination on the transport properties of poly(2,6-dimethylphenylene oxide) 48 (1990) 333

Separation of methane and helium
Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Polymeric membranes based on bisphenol-A for gas separations 42 (1989) 69

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Separation of methane and nitrogen
Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Separation of methylnaphthalene / dodecane mixtures
Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19

Effect of emulsion breakage on selectivity in the separation of hydrocarbon mixtures using aqueous surfactant membranes 34 (1987) 141

Use of additives to enhance the selectivity of liquid surfactant membranes 40 (1989) 329

Separation of multicomponent solutions
Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233

Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Separation of organic solvents from air
Separation of organic vapors from air 31 (1987) 259

Removal of organic vapors from air by selective membrane permeation 36 (1988) 363

Solvent recovery from air 36 (1988) 477

Separation of oxygen and nitrogen
Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31

Liquid membranes for the production of oxygen-enriched air. III. Process design and economics 31 (1987) 69

Oxygen/nitrogen separation by a Nafion-Ag microcomposite membrane 31 (1987) 227

Evaluation of substituted polycarbonates and a blend with polystyrene as gas separation membranes 34 (1987) 185

Relationship between gas separation properties and chemical structure in a series of aromatic polyimides 37 (1988) 45

Gas permeation through composite membranes 37 (1988) 81

Gas permeation and separation by an asymmetric polyimide hollow fiber membrane 41 (1989) 23

Comparative study of two-membrane permeators for gas separations 42 (1989) 147

Temperatures effects on gas permselection properties in hexafluoro aromatic polyimides 46 (1989) 43

Oxygen/nitrogen transport in glassy polymers with oxygen-binding pendent groups 49 (1990) 15

Separation of sulfuric acid and sulfates
Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273

Separation of toluene / n-heptane mixtures
Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. I. Batch test of a mixer–settler 32 (1987) 31

Experimental investigation of the oil/water/oil liquid-membrane separation of toluene and n-heptane. II. Continuous test of a countercurrent permeator 32 (1987) 47

Separation of uranium from vanadium and molybdenum
Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303

Separation of water / acetic acid mixtures
Pervaporation separation of acetic acid–water mixtures using modified membranes. Part II. Gamma-ray-induced grafted polyacrylic acid (PAA)–Nylon 6 membranes 43 (1989) 143

Separation of water / acetone mixtures
Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

Separation of water / acetonitrile mixtures
Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

Separation of water / alcohol mixtures
Removal of n-alcohols from aqueous streams using micellar-enhanced ultrafiltration 30 (1987) 67

Highly water selective cellulosic polyelectrolyte membranes for the pervaporation of alcohol–water mixtures 32 (1987) 207

Evaporation of alcohol/water mixtures through hydrophobic porous membranes 34 (1987) 199

Separation of water / ammonia mixtures
Modeling of liquid membrane separation processes 36 (1988) 425

Separation of water / butoxyethanol mixtures
Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions 48 (1990) 291

Separation of water / chloroform mixtures
Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Separation of water / dioxane mixtures
Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Separation of water / ethanol mixtures
Polymer membrane as a reaction field. III. Effect of membrane polarity on selective separation of a water–ethanol binary mixture through synthetic polymer membranes 26 (1986) 107

Dependence of diffusive permeation rates and selectivities on upstream and downstream pressures. VI. Experimental results for the water/ethanol system 27 (1986) 13

Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11

Continuous ethanol extraction by pervaporation from a membrane bioreactor 30 (1987) 273

Membrane separations in ethanol recovery: an analysis of two applications of hyperfiltration 30 (1987) 289

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125

Styrene-grafted cellulose acetate reverse osmosis membrane for ethanol separation 35 (1988) 301

Recovery and concentration of high vapour pressure bioproducts by means of controlled membrane separation 36 (1988) 331

Radiation-grafted membranes for pervaporation of ethanol/water mixtures 36 (1988) 385

Design and operation of a pervaporation plant for ethanol dehydration 36 (1988) 463

Separation of liquid mixtures by membrane distillation 41 (1989) 211

Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Water–ethanol separation by pervaporation through plasma-graft-polymerized membranes of 2-hydroxyethyl methacrylate with acrylic acid or methacrylic acid 45 (1989) 137

Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane 48 (1990) 55

Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions 48 (1990) 297

Pervaporation of organic liquid–water mixtures through substituted polyacetylene membranes 49 (1990) 69

Separation of water / Halogenated hydrocarbon mixtures
Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Pervaporation of trace chlorinated organics from water through irradiated polyethylene membrane 47 (1989) 183

Separation of water / isopropanol mixtures
The permselectivity of ion-exchange membranes for non-electrolyte liquid mixtures. II. The effect of counterions (separation of alcohol/water mixtures with Nafion membranes) 28 (1986) 109

Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445

Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

Separation of water / mannitol mixtures
Multicomponent effects in the pressure-driven membrane separation of dilute solutions of nonelectrolytes 42 (1989) 285

Frictional and osmotic effects in the pressure-driven membrane separation of dilute solutions 50 (1990) 131

Separation of water / methanol mixtures
Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

Separation of water / tetrahydrofuran mixtures
Influence of downstream pressure on the pervaporation of water–tetrahydrofuran mixtures through a regenerated cellulose membrane (Cuprophan) 27 (1986) 217

Modelling of the influence of downstream pressure for highly selective pervaporation 34 (1987) 165

Shape factor
Correlation of ionic transfer rate in electrodialysis under limiting current density conditions 35 (1988) 193

Sherwood correlation
Mass transfer in the membrane concentration polarization layer under turbulent cross flow. I. Critical literature review and adaptation of existing Sherwood correlations to membrane operations 30 (1987) 153

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145

Sherwood number
Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37

Sieving coefficient
Determining pore size distributions of ultrafiltration membranes by solute sieving. Mathematical limitations 31 (1987) 289

Heteroporous sieving membranes: Rigorous bounds on pore-size distributions and sieving curves 42 (1989) 87

Sieving effect
Sieving effect in electrodialysis with an ion exchange membrane 27 (1986) 155

Study of ion transport across an amphoteric ion exchange membrane – general transport properties of a simple electrolyte 29 (1986) 37

Silacrown ethers
Silacrown ionophores 32 (1987) 83

Silica membrane
Pore structures of sol–gel silica membranes 39 (1988) 213

Silica membranes by the sol–gel process 44 (1989) 289

Silicon dioxide plug
Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

Silicone
Membrane oxygen enrichment. I. Demonstration of membrane oxygen enrichment for natural gas comubstion 29 (1986) 69

Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Effects of polymer structure on the gas permeability of silicone membranes 38 (1988) 55

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Structure/permeability relationships of silicon-containing polyimides 49 (1990) 1

Silicone oil
Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Silicone rubber
Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Permeation of hydrocortisone and hydrocortisone 21-alkyl esters through silicone rubber membranes. Relationship to regular solution solubility behavior 30 (1987) 47

The effects of CO_2 exposure on pure and mixed gas permeation behavior: comparison of glassy polycarbonate and silicone rubber 30 (1987) 191

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Separation of ethanol from ethanol/water mixtures by plasma-polymerized membranes from silicone compounds 36 (1988) 353

Gas permeation through composite membranes 37 (1988) 81

Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane 48 (1990) 55

A study of organic compound pervaporation through silicone rubber 49 (1990) 171

Silver extraction
Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295

Silver impregnation
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Silver membrane
Molecularly-bonded metal microfiltration membrane 39 (1988) 273

Silver nitrate carrier
Separation of ethylene from ethane by a flowing liquid membrane using silver nitrate as a carrier 45 (1989) 115

Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269

Silver transport
The effect of the co-anion, SCN^-, on macrocycle-facilitated selective transport of Cd(II) over Ag(I) in an emulsion membrane 33 (1987) 169

Simulation of diffusion by electrical measurements
An experimental modeling method for the analysis of diffusion through thin membranes 35 (1987) 73

Singlet oxygen
Preparation and properties of porphyrin-modified hollow-fiber membranes for use as heterogeneous photosensitizers for singlet oxygen and for artificial photosynthesis 28 (1986) 31

Skin, human
An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Skin layer porosity
Permoporometric study on ultrafiltration membranes 41 (1989) 69

Small angle X-ray scattering
Increased facilitated transport related to microstructural changes in heat-treated ion-exchange membranes 47 (1989) 143

Soaking method
Preparation of microporous membranes from cation exchange membranes 42 (1989) 233

Soda recovery
Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83

Sodium–hydrogen exchange
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

Solar energy storage
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313

Sol–gel techniques
Inorganic membranes obtained by sol–gel techniques 39 (1988) 203

Pore structures of sol–gel silica membranes 39 (1988) 213

Titania and alumina ceramic membranes 39 (1988) 243

Pervaporation of water–dioxane mixtures with poly(dimethylsiloxane-*co*-siloxane) membranes prepared by a sol-gel process 42 (1989) 169

Silica membranes by the sol–gel process 44 (1989) 289

Solubility diagram
Non-ideal solubility of liquid mixtures in poly(vinyl alcohol) and its influence on pervaporation 47 (1989) 261

Solubility parameters
An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261

Solubilization in lipid bilayers
Solubilization sites in phospholipid bilayers: studies with photochemically reactive probes 33 (1987) 201

Soluble oil wastes treatment
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

Solution–diffusion mechanism in pervaporation
Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125

Investigation of mass transport in asymmetric pervaporation membranes 36 (1988) 445

Solution–diffusion model
Linear relationships between rejection and flux in pressure-driven membrane separation processes 43 (1989) 307

Solvation, selective
Modification of the transport properties of a membrane by selective solvation: hyperfiltration of acetonitrile/water mixtures 32 (1987) 105

Solvent extraction, dispersion-free
Hollow fiber solvent extraction of pharmaceutical products: a case study 47 (1989) 235

Hollow fiber solvent extraction: performances and design 50 (1990) 153

Solvent extraction, membrane-augmented
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Solvent extraction, membrane-based
Further studies on solvent extraction with immobilized interfaces in a microporous hydrophobic membrane 26 (1986) 79

Solvent permeability method
Permoporometric study on ultrafiltration membranes 41 (1989) 69

Solvent recovery
Separation of organic vapors from air 31 (1987) 259

Removal of organic vapors from air by selective membrane permeation 36 (1988) 363

Solvent recovery from air 36 (1988) 477

Solvent transfer
Evaluating membrane cell e.m.f.'s from different schemes of integration of the relevant Nernstian equations 34 (1987) 345

Sorption
see also alkane sorption, benzene sorption, carbon dioxide sorption, chloroform sorption, gas sorption, hydrogen sorption, nitrogen sorption, oscillatory sorption, oxygen sorption, water sorption

Sorption, differential
Sorption of benzene and n-hexane in polyethylene 35 (1988) 207

Sorption isotherm
Gas sorption and permeation in poly(ethyl methacrylate) 45 (1989) 167

Sorption, temperature dependence
Thermodynamics of the absorption of hydrocarbon vapors in polyethylene films 31 (1987) 235

Sorption measurements
Estimation of parameters in a sorption–diffusion model of pervaporation 35 (1988) 125

Sorption of alcohols
Measurement of sorption in polymer membranes with a quartz crystal microbalance 29 (1986) 127

Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Spinning of hollow fibers
The effect of free volume on enhanced transport rates of polysulfone hollow fiber membranes spun from Lewis acid:base solvent complexes 46 (1989) 135

Spiral-wound module
Fluid flow in an idealized spiral wound membrane module 28 (1986) 191

Spray technique
A spray technique for the determination of membrane diffusion and distribution coefficients by the time-lag method: evaluated for electrolyte transport through charged and uncharged membranes 26 (1986) 289

A new method for determining membrane diffusion coefficients from their response to regular forced concentration waves 27 (1986) 105

Stability constant
The effect of complex stability on the rates of transport, uptake, and release of ions by macrocyclic carriers in liquid membrane systems 26 (1986) 99

Macrocycle-mediated cation transport from binary Hg^{2+}–M^{n+} mixtures in a 1 *M* HNO_3–$CHCl_3$–1*M* HNO_3 liquid membrane system 26 (1986) 241

Stefan-Maxwell equations
Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes 48 (1990) 127

Stefan–Maxwell equations
Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233

Stereocomplex membrane
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Steroid permeation
Permeation of hydrocortisone and hydrocortisone 21-alkyl esters through silicone rubber membranes. Relationship to regular solution solubility behavior 30 (1987) 47

Stirring, effects of
Boundary layer effects on membrane permeation rates 27 (1986) 359

Finite bath and boundary layer effects on solute release kinetics from solid matrices 34 (1987) 207

Stratum corneum
Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Streaming potential
Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195

Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient 48 (1990) 91

Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition 48 (1990) 309

Stress–strain behavior
Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Stripping column
Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Styrene graft
Synthesis of ion-exchange membranes by radiation grafting 41 (1989) 155

Styrenesulfonic acid graft
Irradiation grafted ion-exchange membranes from uniaxially and biaxially oriented copolymer films 49 (1990) 321

Subdrop ejection
Subdrop ejection from double emulsion drops in shear flow 26 (1986) 231

Sucrose hydrolysis
Sucrose bioconversion in membrane reactors 41 (1989) 225

Sugarcane juice clarification
Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103

Sulfate permease
Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

Sulfate transport
Effect of temperature on sulfate transport in two *Penicillia* 33 (1987) 221

Sulfonated membrane
The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

Modification of the transport properties of ion exchange membranes. IX. Layer formation on a cation exchange membrane by acid–amide bonding, and transport properties of the resulting membrane 45 (1989) 197

Sulfur dioxide recovery
SO_2 separation from gaseous mixtures by membranes 41 (1989) 49

Support, resistance of
Gas permeation through composite membranes 37 (1988) 81

Support, surface structure of
Material transport and organizing phenomena of Langmuir–Blodgett membranes from polymerizable built up diacetylene amphiphiles on hydrophobic supports 26 (1986) 63

Supported liquid membrane
Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303

Diffusion of local anesthetics through liquid membranes 26 (1986) 329

Gas permeation and separation by aqueous membranes immobilized across the whole thickness or in a thin section of hydrophobic microporous Celgard films 27 (1986) 41

Coupled zinc transport through a bis(2-ethylhexyl)phosphoric acid solid-supported liquid membrane from aqueous perchlorate media 27 (1986) 77

A composite supported liquid membrane for ultraclean Co-Ni separations 27 (1986) 339

Carrier-mediated selective transport of Ga^{3+} from Ga^{3+}/Al^{3+} binary solutions and Cu^{2+} from Cu^{2+}/Zn^{2+} binary solutions through alkylated cupferron-impregnated membrane 27 (1986) 349

Metal ion separation and concentration with supported liquid membranes 28 (1986) 123

Origin and significance of the deviations from a pseudo first order rate law in the coupled transport of metal species through supported liquid membranes 29 (1986) 195

A redox supported liquid membrane containing 2,5-di(tert-pentyl)hydroquinone as electron carrier 29 (1986) 287

The mechanism of transport of uranyl nitrate across a solid supported liquid membrane using tributyl phosphate as mobile carrier 29 (1986) 295

Degradation of supported liquid membranes under an osmotic pressure gradient 30 (1987) 97

Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Liquid membranes for the production of oxygen-enriched air. I. Introduction and passive liquid membranes 31 (1987) 15

Liquid membranes for the production of oxygen-enriched air. II. Facilitated-transport membranes 31 (1987) 31

Membrane potential and ion flux in a reverse transport system with a liquid membrane using monensin as a carrier 31 (1987) 109

Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Transport of zinc through a supported liquid membrane using di(2-ethylhexyl) phosphoric acid as a mobile carrier 31 (1987) 209

Some observations on the stability of supported liquid membranes 33 (1987) 19

Membrane potential studies on cholesterol liquid membranes 34 (1987) 155

Characterization of a supported liquid membrane for macrocycle-mediated selective cation transport 37 (1988) 13

Extraction of gold and silver cyanide complexes through supported liquid membranes containing macrocyclic extractants 38 (1988) 295

The calculation of permeation rates through supported liquid membranes based on the kinetics of liquid–liquid extraction 39 (1988) 43

Ion transport mediated by inverted micellar aggregates across a phosphatidylcholine–octanol liquid membrane 41 (1989) 187

Progressive wetting of supported liquid membranes by aqueous solutions 42 (1989) 183

Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213

Supported liquid membranes for copper transport 44 (1989) 273

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73

Electron–proton coupled transport across biomimetic polymer-supported liquid membranes 45 (1989) 85

Selective and enhanced mass separation in hollow fiber membranes with facilitated ion-pair transport 45 (1989) 99

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

Novel liquid membrane transport system for tryptophan 47 (1989) 53

Selectivity enhancement in the permeation of rare earth metals through supported liquid membranes by addition of diethylenetriaminepentaacetic acid to the aqueous phase 47 (1989) 217

Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

Studies on electrochemical characterization of ion selective cellulose acetate membranes with and without a lecithin liquid membrane 49 (1990) 223

Selective facilitated transport of benzene across supported and flowing liquid membranes containing silver nitrate as a carrier 50 (1990) 269

Macrocycle-mediated separation of Eu^{2+} from trivalent lanthanide cations in a modified thin-sheet-supported liquid membrane system 50 (1990) 319

Supported membrane
Transport studies with parchment supported model membranes 46 (1989) 185

Suppressor
An annular dual-membrane continuous cation exchanger packed with ion exchange resin 27 (1986) 31

Hollow-fiber membrane systems as suppressors in ion chromatography 31 (1987) 249

Surface diffusion
Gas and surface diffusion in modified γ-alumina systems 46 (1989) 225

Surface force–pore flow model
Theoretical modification of the surface force–pore flow model for reverse osmosis transport 42 (1989) 119

Surface modification
Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules by microencapsulated activated charcoal formed by coating with a polyethylene membrane 29 (1986) 277

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Tailoring of ultrafiltration membranes by plasma treatment and their application for the desalination and concentration of water-soluble organic substances 36 (1988) 207

Surface morphology
Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Surface structure changes
Characteristics of Ca^{2+}-induced structural changes of Millipore-DOPH artificial membranes. Possibility of calcium ion detection 35 (1988) 231

Surface tension
Hydrophobicity measurements of microfiltration and ultrafiltration membranes 47 (1989) 333

Surfactant
Removal of n-alcohols from aqueous streams using micellar-enhanced ultrafiltration 30 (1987) 67

Effect of surfactant type on selectivity for the separation of 1-methylnaphthalene from dodecane using liquid membranes 32 (1987) 19

Role of surfactants in the behavior of emulsion liquid membranes–development of new surfactants 38 (1988) 249

An approach to the mathematical description of the permeation of hydrocarbons through liquid membranes 38 (1988) 261

Microemulsion liquid membranes. I. Cobalt transport in a surfactant–dodecane system 42 (1989) 215

Surfactant monolayers
The effect of Langmuir–Blodgett layer pretreatment on the performance of ultrafiltration membranes 43 (1989) 187

Surfactants, ionic
A polymeric electrode for ionic surfactants 36 (1988) 511

Sweetening of citrus juice
Deacidification of citric acid solutions by electrodialysis 27 (1986) 165

Swelling
Permeability to O_2 and N_2 of poly(vinyl alcohol) membranes swollen with aqueous solutions of nonvolatile substances 31 (1987) 147

Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Effects of nonvolatile additives on permeabilities of O_2 and N_2 through water-swollen poly(vinyl alcohol) membranes 35 (1988) 311

Production and characterization of homogeneous porous polymer films 36 (1988) 79

Polyamide microcapsules for controlled release. IV. Effects of swelling 40 (1989) 55

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

Anion permeability of cellulosic membranes. Part I. Porosity of water-swollen membranes 46 (1989) 283

Anion permeability of cellulosic membranes. Part 2. Effect of fixed groups on permeation of co-ions 46 (1989) 299

Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior 48 (1990) 281

Swelling, effect of pH on
Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Swelling interface number
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Symport mechanism
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51

Synthesis of organic compounds
Use of ion exchange membranes in preparative organic electrochemistry. IV. Electroreduction of dibromo compounds and solvent effects 30 (1987) 23

Efficient mixing in membrane bioreactors: minimizing dilution effects 30 (1987) 243

Application of electrodialysis in the production of malic acid 36 (1988) 489

T

Tannery effluents
Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Taste reception
A new enzymatic receptor to be used in a biosensor 49 (1990) 95

Teaching membrane technology
Instruction in membrane separation processes 44 (1989) 265

Temperature polarization
Heat and mass transfer in membrane distillation 33 (1987) 299

Temperature step change
Measurement of transport parameters in polymer films: flux overshoot produced by a step change in temperature 40 (1989) 87

Teorell–Meyer–Sievers theory
Salt permeability maxima in charged poly(methyl methacrylate) stereocomplex membranes 32 (1987) 69

Membrane potential and salt permeability of cationic poly(vinyl alcohol) membranes 47 (1989) 67

Ternary concentrated alkaline system
Transport properties of Permion™ membranes in concentrated alkaline solutions. II. Potassium permanganate–potassium hydroxide solution 42 (1989) 259

Ternary concentration profiles
Modelling of asymmetric membrane formation. I. Critique of evaporation models and development of a diffusion equation formalism for the quench period 28 (1986) 287

Ternary diffusion
Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Formation of membranes by means of immersion precipitation. Part II. The mechanism of formation of membranes prepared from the system cellulose acetate–acetone–water 34 (1987) 67

Ternary diffusion equations
Formation of membranes by means of immersion precipitation. Part I. A model to describe mass transfer during immersion precipitation 34 (1987) 45

Further comments on the diffusion equations for membrane formation 43 (1989) 319

Ternary electrolyte system
A finite-difference method for numerical solution of the steady-state Nernst-Planck equations with non-zero convection and electric current density 28 (1986) 139

Validity of the electroneutrality and Goldman constant-field assumptions in describing the diffusion potential for ternary electrolyte systems in simple, porous membranes 29 (1986) 117

Ternary gas separation
Ternary gas separation using two different membranes 39 (1988) 61

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Competitive facilated transport of acid gases in perfluorosulfonic acid membranes 46 (1989) 309

Ternary phase diagrams
Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Tetraethoxysilane
Introduction of specific gas selectivity to porous glass membranes by treatment with tetraethoxysilane 42 (1989) 109

Tetraphenylborate
Plasma-polymerized membrane electrode selective for lipophilic cations 46 (1989) 157

Thallium transport
Effect of co-anion on DC18C6-mediated Tl^+ transport through an emulsion liquid mebrane 28 (1986) 77

Thermal radiation pressure theory
Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Thermal resistance
Synthesis, casting, and diffusion testing of poly[bis(trifluoroethoxy)phosphazene] membranes 28 (1986) 47

Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267

Separation of Cr ions from Co and Mn ions by poly[bis(trifluoroethoxy)phosphazene] membranes 43 (1989) 217

Gas permeation characteristics of a composite poly(n-octadecylsiloxane)-aluminum oxide membrane 43 (1989) 313

Gas separation properties of a thermally stable and chemically resistant polytriazole membrane 46 (1989) 29

Thermodynamic analysis
Thermodynamic analysis of a membrane-forming system water/*N*-methyl-2-pyrrolidone/polyethersulfone 36 (1988) 119

Thermodynamics of irreversible processes
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Non-equilibrium thermodynamics of electrokinetic effects across mixed-lipid membranes 29 (1986) 259

Irreversible thermodynamics of transport across charged membranes. Part II. Ion-water interactions in permeation of alkali 30 (1987) 125

Irreversible thermodynamics of transport across charged membranes. Part III. Efficiency of energy conversion in separation processes with Nafion 120 membrane from phenomenological transport coefficients 30 (1987) 141

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Electrokinetic energy conversion across liquid membranes generated by cholesterol 31 (1987) 195

Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45

Mechanics and thermodynamics in membrane permeation 39 (1988) 11

Non-equilibrium thermodynamic studies of electrokinetic effects. Part XIX. Studies with electrolyte–dextrose solutions across an inorganic ion-exchange membrane 43 (1989) 31

Transport studies with parchment supported model membranes 46 (1989) 185

The role of coupling in pervaporation 47 (1989) 277

Thermofluidodynamics
Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Thermoosmosis
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211

The effect of temperature on thermoosmosis 28 (1986) 183

Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Thermophilic proteins
Biotechnological applications of thermophilic ATP synthase: membrane electronics and genetics 41 (1989) 237

Thermoporometry
Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329

Thermoswitch
Novel polymer/liquid crystal composite membrane with unique permselective characteristics 36 (1988) 243

Thiazole extraction
Hollow fiber solvent extraction: performances and design 50 (1990) 153

Thiourea diffusion
Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Time-lag method
A spray technique for the determination of membrane diffusion and distribution coefficients by the time-lag method: evaluated for electrolyte transport through charged and uncharged membranes 26 (1986) 289

A note on the realistic estimation of experimental time lag errors 31 (1987) 103

Counterdiffusion of carbon dioxide and methane in a glassy polymer 38 (1988) 1

Time lag
A Laplace transform technique for calculating diffusion time lags 26 (1986) 251

Theoretical effects of binding on transport lag times in the case of multilayered membranes 50 (1990) 57

Titania membrane
Titania and alumina ceramic membranes 39 (1988) 243

Toluene liquid membrane
Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213

Tortuosity
Barrier membranes; concepts revisited 43 (1989)

Surface and void tortuosities for a random fiber bed: overlapping, parallel cylinders of several radii 49 (1990) 103

Tortuous pore model
Comparison of methods for characterizing microporous membranes for plasma separation 32 (1987) 3

Track-etched membrane
Effects of adsorbed polyelectrolytes on convective flow and diffusion in porous membranes 28 (1986) 269

Study of some electrokinetic phenomena in charged microcapillary porous membranes 35 (1987) 1

Quantitative microscopic study of surface characteristics of track-etched membranes 36 (1988) 19

Effects of structure and charge on the diffusive salt permeation across microporous membrane filters 36 (1988) 31

Streaming potential and phenomenological coefficients in Nucleopore membranes 36 (1988) 45

Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Transference numbers
Transport through the peritoneal membrane. I. Evaluation of thermodynamic parameters 46 (1989) 203

Transition metal ion carrier
Selective permeation of ethylene and propylene shrough Rh^{3+}-polyethylene glycol liquid membranes 30 (1987) 105

Liquid membranes for the production of oxygen-enriched air. II: Facilitated-transport membranes 31 (1987) 31

Transmission electron microscopy
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Structure–performance relationships of composite membranes: porous support densification 32 (1987) 291

Surface reactions on blood contact during haemodialysis and haemofiltration with various membrane types 36 (1988) 215

A surface science investigation of composite membranes 45 (1989) 225

Characterization of Nafion membranes by transmission electron microscopy 45 (1989) 261

Transport
see also active transport, alkali cation transport, alkali chloride transport, alkaline earth chloride transport, amino acid transport, benzene transport, carrier-mediated transport, competitive metal ion transport, convection/current driven transport, convective transport, coupled transport, electrically facilitated transport, electron transport, facilitated transport, glucose transport, hindered transport, hydrochloric acid transport, hydrogen ion-coupled transport, insulin transport, iodide transport, ion transport, lanthanide transport, light-induced transport, mercury transport, nitrate transport, non-linear transport, phosphate ion transport, proton transport, reverse transport, sulfate transport, thallium transport, uphill transport, zinc transport

Transport, diffusion limited
Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13

Transport, reaction limited
Optimal regimes of facilitated transport for multiple site carriers 42 (1989) 13

Transport depletion
Transport depletion for nickel recovery 45 (1989) 65

Transport in charged membranes
Film control and membrane control in charged membranes 36 (1988) 497

Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Transport in ion exchange membranes
Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes 48 (1990) 25

Transport in polycarbonate
Measurement of transport parameters in polymer films: flux overshoot produced by a step change in temperature 40 (1989) 87

Transport number
Electrokinetic phenomena in amphoteric membranes 41 (1989) 177

Transport number, dynamic
Transport numbers in a perfluorocarboxylate cation-exchange membrane 41 (1989) 143

Transport of carboxylic acids
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

Baseline studies on iontophoretic transport in hairless mouse skin: the effect of applied voltage drop and pH on the iontophoresis of a model weak electrolyte 49 (1990) 305

Transport of chlorinated hydrocarbons
Interactions of organic halides with a polyurethane elastomer 50 (1990) 225

Transport of ionized drugs
An *in vitro* method for studying the iontophoretic enhancement of drug transport through skin 35 (1988) 137

Transport of nitric oxide
Light-assisted transport of nitric oxide across membranes containing nitrosyl chloride solutions 26 (1986) 313

Transport of organic acids
Active transport of organic acids through poly(4-vinylpyridine-co-acrylonitrile) membranes 26 (1986) 51

Transport of organic compounds
Effects of environmental conditions on the transport of organic molecules through Nafion membranes 45 (1989) 55

Transport of organic compounds through ion exchange membranes
Transport of aniline, chloroaniline, nitroaniline, and urea through perfluorosulfonated ionomer membranes 28 (1986) 311

Transport of strong electrolytes
Studies of transport of strong electrolytes and carboxylic acids through lipid–nitrocellulose membranes on the basis of a lipid multibarrier channel model 26 (1986) 179

Transport through skin
Electro-osmotic flow measurements 41 (1989) 377

Network synthesis of the epithelial transport system 41 (1989) 393

Tributyl phospate
The mechanism of transport of uranyl nitrate across a solid supported liquid membrane using tributyl phosphate as mobile carrier 29 (1986) 295

Trilaurylamine
Hydrochloric acid transport through a trilaurylamine-supported liquid membrane from aqueous lithium chloride media 44 (1989) 213

Tubular membrane
Characterization studies of ceramic membranes. A novel technique using a Coulter porometer 39 (1988) 259

Turbidity measurements
Transformation from mixed micelles to vesicles 41 (1989) 269

Turbulence induced coagulation
Effect of turbulence on film permeability in cross-flow membrane filtration 48 (1990) 343

Turbulence promoters
Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331

Mass transfer in corrugated-plate membrane modules. I. Hyperfiltration experiments 40 (1989) 243

Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

Two-membrane column
Separation of helium and hydrocarbon mixtures by a two-membrane column 27 (1986) 1

Use of pervaporation for separating azeotropic mixtures using two different hollow fiber membranes 33 (1987) 71

Ternary gas separation using two different membranes 39 (1988) 61

Comparative study of two-membrane permeators for gas separations 42 (1989) 147

A study of the separation behavior of different membrane columns with respect to ternary gas mixtures 46 (1989) 261

Two-membrane permeator
Comparative study of two-membrane permeators for gas separations 42 (1989) 147

U

Ultrafiltration
Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97

Removal of n-alcohols from aqueous streams using micellar-enhanced ultrafiltration 30 (1987) 67

Ultrafiltration: separation enhancement by counter-current cascading 33 (1987) 97

Computer simulation of ultrafiltration processes 36 (1988) 201

Application of the Stefan–Maxwell equations to the pressure-driven membrane separation of dilute multicomponent solutions of nonelectrolytes 37 (1988) 233

Selective ultrafiltration 50 (1990) 109

Ultrafiltration, effect of particle charge on
Charge effects in the cross-flow filtration of colloids and particulates 43 (1989) 69

Ultrafiltration, effect of solute–solute interactions on
Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1

Ultrafiltration, effect of viscosity on
Effect of solution viscosity on ultrafiltration flux 39 (1988) 187

Ultrafiltration in the presence of an electric field
Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147

Ultrafiltration, mass transfer in
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Ultrafiltration membrane
Characterization of ultrafiltration membranes by drying 28 (1986) 209

The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

Determining pore size distributions of ultrafiltration membranes by solute sieving. Mathematical limitations 31 (1987) 289

Characteristics of membranes formed by acid dissolution of polyamidesMembranes and membrane processes, E. Drioli and M. Nakagaki 31 (1987) 321

Characterization of porous sublayers in UF membranes by thermoporometry 32 (1987) 329

Production and characteristics of ultrafiltration membranes with uniform pores from two-dimensional arrays of proteins 33 (1987) 27

Annealing effect in porous cellulose acetate membranes 34 (1987) 283

Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

Isoporous ultrafiltration membranes from bacterial cell envelope layers 36 (1988) 179

Poly(vinyl chloride) ultrafiltration membranes modified by high frequency discharge treatment 36 (1988) 187

Tailoring of ultrafiltration membranes by plasma treatment and their application for the desalination and concentration of water-soluble organic substances 36 (1988) 207

Mass transfer in the membrane concentration polarization layer under turbulent cross flow. II. Application to the characterization of ultrafiltration membranes 37 (1988) 145

Characterization of ultrafiltration membranes: cut-off determination by gel permeation chromatography 41 (1989) 55

Permoporometric study on ultrafiltration membranes 41 (1989) 69

The effect of Langmuir–Blodgett layer pretreatment on the performance of ultrafiltration membranes 43 (1989) 187

Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

Influence of casting solution concentration on structure and performance of cellulose acetate membranes 46 (1989) 325

Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Ultrafiltration of blood
see hemofiltration

Ultrafiltration of blood plasma
Controlling factors in hemofiltration 44 (1989) 35

Ultrafiltration of cheese whey
Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Ultrafiltration of dextrans
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165

Mass transfer in corrugated-plate membrane modules. II. Ultrafiltration experiments 40 (1989) 261

The deformation of dextran molecules. Causes and consequences in ultrafiltration 40 (1989) 311

Characterization of ultrafiltration membranes: cut-off determination by gel permeation chromatography 41 (1989) 55

Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography 45 (1989) 17

Ultrafiltration of lignosulphonates
Fractionation and concentration of lignosulphonates by ultrafiltration 47 (1989) 107

Ultrafiltration of monodisperse solutes
Prediction of rejection coefficients in ultrafiltration 43 (1989) 47

Ultrafiltration of oily emulsions
A fundamental study of the ultrafiltration of oil–water emulsions 36 (1988) 161

Ultrafiltration of organic compounds
Tailoring of ultrafiltration membranes by plasma treatment and their application for the

desalination and concentration of water-soluble organic substances 36 (1988) 207

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration 48 (1990) 1

Ultrafiltration of polyelectrolytes
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17

Ultrafiltration of poly(ethylene glycol)s
Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165

A hydrodynamic study of the retention of polyethylene glycols by cellulose acetate membranes in the absence and presence of proteins 30 (1987) 259

Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes 48 (1990) 203

Ultrafiltration of proteins
Membrane fouling in the ultrafiltration of polyelectrolyte solutions: polyacrylic acid and bovine serum albumin 26 (1986) 17

Modeling fouling mechanisms in protein ultrafiltration 27 (1986) 181

Control of concentration polarization and fouling of membranes in medical, food and biotechnical applications 27 (1986) 195

Membrane–solute interactions: influence on pure solvent transfer during ultrafiltration 29 (1986) 207

A hydrodynamic study of the retention of polyethylene glycols by cellulose acetate membranes in the absence and presence of proteins 30 (1987) 259

Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307

Membrane fouling in a constant-flux ultrafiltration cell 34 (1987) 267

Basic transport mechanisms of ultrafiltration in the presence of fluidized particles 34 (1987) 331

Separation of protein mixtures by Bioran porous glass membranes 36 (1988) 55

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

Ultrafiltration of macromolecular solutions and cross-flow microfiltration of colloidal suspensions. A contribution to permeate flux calculations 36 (1988) 231

Basic transport mechanisms of ultrafiltration in the presence of an electric field 38 (1988) 147

The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149

Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189

Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Preparation of microporous membranes from cation exchange membranes 42 (1989) 233

The effect of Langmuir–Blodgett layer pretreatment on the performance of ultrafiltration membranes 43 (1989) 187

Fouling of unmodified and modified polysulfone ultrafiltration membranes by ovalbumin 44 (1989) 183

Concentration polarization phenomena during dead-end ultrafiltration of protein mixtures. The influence of solute–solute interactions 47 (1989) 1

Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores 49 (1990) 287

Selective ultrafiltration 50 (1990) 109

Ultrafiltration of rice wine
Ultrafiltration of rice wine for removal of bacteria 44 (1989) 245

Ultrafiltration of sodium carboxymethylcellulose
Physical properties of sodium carboxymethyl cellulose molecules adsorbed on a polyacrylonitrile ultrafiltration membrane 38 (1988) 127

Ultrafiltration of sugar solutions
Clarification of technical sugar solutions through a dynamic membrane formed on a porous ceramic tube 41 (1989) 103

Ultrafiltration of suspensions
Flux decline in batch ultrafiltration: concentration polarization and cake formation 26 (1986) 1

Fluid dynamics of dilute suspensions and fouling of tubular membrane modules 39 (1988) 125

Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Ultrafiltration of wheat starch effluent
Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87

Ultrafiltration rate enhancement
Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87

Ultrafiltration, unstirred
Resistance to the permeate flux in unstirred ultrafiltration of dissolved macromolecular solutions 26 (1986) 165

The boundary-layer resistance model for unstirred ultrafiltration. A new approach 40 (1989) 149

Effects of diffusion and osmosis on flux decline during ultrafiltration with total rejection in an unstirred batch cell 50 (1990) 177

Ultrafiltration with total rejection
Effects of diffusion and osmosis on flux decline during ultrafiltration with total rejection in an unstirred batch cell 50 (1990) 177

Unsteady-state measurements
The unsteady-state measurement of polymer membrane permeability to dissolved oxygen 43 (1989) 177

Uphill transport
Simulation of the transport of ions against their concentration gradient across charged membranes 37 (1988) 251

Uphill transport of iodide ions through a membrane of poly(vinyl acetate)–iodine–iodide complex 44 (1989) 233

Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux 48 (1990) 141

Uphill transport of a dilute solute in mass separation devices with reactive co-transport membranes 49 (1990) 37

A study of ion permeation across a charged membrane in multicomponent ion systems as a function of membrane charge density 49 (1990) 145

Uranium recovery
Liquid membranes for separating uranium from vanadium and uranium from molybdenum 26 (1986) 303

Characteristics of uranium adsorption by amidoxime membrane synthesized by radiation-induced graft polymerization 34 (1987) 307

Uranium transport
The mechanism of transport of uranyl nitrate across a solid supported liquid membrane using tributyl phosphate as mobile carrier 29 (1986) 295

Urea permeation
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Transport of aniline, chloroaniline, nitroaniline, and urea through perfluorosulfonated ionomer membranes 28 (1986) 311

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Urease
Analysis of a microencapsulated-urease fluidized-bed reactor under steady and transient state operating conditions 29 (1986) 321

Enzyme immobilization in an asymmetric charged membrane 38 (1988) 223

Uric acid permeation
Polypropylene dialysis membrane prepared by cobalt-60 gamma-radiation-induced graft copolymerization 39 (1988) 1

Urinary bladder membrane
Measurements of hydrodynamic permeability of aqueous solutions of urea, glucose and their liquid mixtures across urinary bladder membranes of goat 26 (1986) 277

Electrokinetic studies of aqueous solutions of urea, thiourea, glucose and creatinine across urinary bladder membranes 31 (1987) 157

V

Vacuum reaction injection molding
Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

Vascular membrane
Ion transport and cation–polyanion interactions in vascular biomembranes 41 (1989) 353

Velocity profiles
Fluid flow in an idealized spiral wound membrane module 28 (1986) 191

Velocity variation method
Mass transfer coefficients in cross-flow ultrafiltration 47 (1989) 25

Vesicle, unilamellar
Transformation from mixed micelles to vesicles 41 (1989) 269

Vesicle formation
Transformation from mixed micelles to vesicles 41 (1989) 269

On the mechanism of vesicle formation 50 (1990) 215

Vesicle membrane
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

Viologen
Mechanisms of oxidation–reduction across vesicle bilayer membranes: an overview 28 (1986) 3

Viscose waste
Separation of metal species by emulsion liquid membranes 38 (1988) 281

Viscosity
Effect of solution viscosity on ultrafiltration flux 39 (1988) 187

Viscosity reduction
Enhanced ultrafiltration flux rates by enzymatic hydrolysis in protein recovery from wheat starch effluent 41 (1989) 87

Viscous flow
Generalization of membrane reflection coefficients for nonideal, nonisothermal, multicomponent systems with external forces and viscous flow 28 (1986) 229

Vitamin B_{12}
Solute diffusion in swollen membranes. Part VIII. Characterization of and diffusion in asymmetric membranes 32 (1987) 125

Effect of temperature on the release rate of biomolecules from thermally reversible hydrogels 33 (1987) 191

Poly(vinylidene fluoride)- or poly(vinylidene chloride/vinyl chloride)-coated activated charcoal for the adsorption of large lipophilic molecules with exclusion of small hydrophilic molecules 47 (1989) 293

Vitamin K
Photochemically activated electron transport across unilamellar liposomes using coenzyme Q_{10} and vitamin K_1 as carriers 27 (1986) 275

A comparison between chemically and photochemically driven electron transport reactions in immobilized liquid membranes 30 (1987) 213

A determination of electrode potentials at immobilized liquid membrane interfaces: Bipolar effects 34 (1987) 109

Electron transport reactions in immobilized liquid membranes: a comparison of the carriers vitamin K_3 and 2-tert-butylanthraquinone 37 (1988) 27

Vycor porous glass
Gas permeability of high-temperature-resistant silicone polymer–Vycor glass membrane 37 (1988) 267

W

Wastewater treatment
Membrane-based hybrid processes for energy-efficient waste-water treatment 28 (1986) 87

Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97

Extraction of organic contaminants in aqueous solutions by pervaporation 30 (1987) 11

Alkaline black liquor treatment by continuous electrodialysis 33 (1987) 83

Pervaporation: importance of concentration polarization in the extraction of trace organics from water 36 (1988) 373

Separation of metal species by emulsion liquid membranes 38 (1988) 281

Fluid mechanics in membrane filtration: recent developments 40 (1989) 123

Transport depletion for nickel recovery 45 (1989) 65

Recovery of acid from cation exchange resin regeneration waste by diffusion dialysis 45 (1989) 273

Extraction of metal ions from waste water. Modelling of the mass transfer in a supported-liquid-membrane process 45 (1989) 281

Transport of mercury(II) through impregnated polybutadiene-*o*-nitrophenyl octyl ether membrane 46 (1989) 113

Electrodialysis in the recovery and reuse of chromium from industrial effluents 46 (1989) 215

Bubble-free aeration using membranes: mass transfer analysis 47 (1989) 91

Water content
Temperature dependence of water content and proton conductivity in polyperfluorosulfonic acid membranes 32 (1987) 313

Freezing and nonfreezing water in charged membranes 38 (1988) 175

Water permeation
Permeation and thermal osmosis of water through cellulose acetate membranes 26 (1986) 211

Control of water permeability by mechanochemical contraction of poly(methacrylic acid)-grafted membranes 27 (1986) 327

The preparation of ultrafiltration membranes from a moderately sulfonated poly(oxy(2,6-dimethyl-1,4-phenylene)) 29 (1986) 169

The modeling of biological membrane properties by means of filters impregnated with lipid-like substances 30 (1987) 39

Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Selection of polymers for pervaporation membranes 36 (1988) 315

Electronically conductive mineral membranes designed for electro-ultrafiltration 41 (1989) 127

Determination of the permeant concentration profile in a membrane during gas permeation 46 (1989) 57

Water purification
Membrane distillation in the treatment of aqueous solutions 33 (1987) 277

Transport phenomena in membrane distillation 33 (1987) 285

Membranes and modules for transmembrane distillation 39 (1988) 25

Water sorption
Sorption, diffusion, and pervaporation of organics in polymer membranes 44 (1989) 161

Water splitting
Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface 48 (1990) 221

Water, state of, in membrane
Freezing and nonfreezing water in charged membranes 38 (1988) 175

Water states in membrane
Characterization of ultrafiltration membranes by drying 28 (1986) 209

A differential scanning calorimetry study of the states of water in swollen poly(vinyl alcohol) membranes containing nonvolatile additives 42 (1989) 303

Water structure
Quantum mechanical studies of local water structure near fixed ions in ion exchange membranes 47 (1989) 79

Water transport
Lifetime of supported liquid membranes: the influence of interfacial properties, chemical composition and water transport on the long-term stability of the membranes 31 (1987) 117

Isothermal and non-isothermal water transport in porous membranes. II. The steady state 33 (1987) 1

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

Water and salt transport through two types of polyamide composite membranes 36 (1988) 297

Mechanism of water transport in controlled porosity osmotic devices 40 (1989) 279

Hindered transport through micropores with adsorbed polyelectrolytes 47 (1989) 163

Hydrophilization of polyethylene membranes 50 (1990) 97

Water uptake
Characterization of ultrafiltration membranes by drying 28 (1986) 209

Examination of the moving boundaries associated with non-Fickian water swelling of glassy gelatin beads: effect of solution pH 43 (1989) 87

Water vapor transport
Membrane distillation in the treatment of aqueous solutions 33 (1987) 277

Heat and mass transfer in membrane distillation 33 (1987) 299

Wettability
Wetting criteria for the applicability of membrane distillation 33 (1987) 315

Liquid–liquid extraction and stripping of gold with microporous hollow fibers 35 (1987) 57

Characterization of ultrafiltration membranes by infrared spectroscopy, ESCA, and contact angle measurements 43 (1989) 243

Wetting, progressive
Progressive wetting of supported liquid membranes by aqueous solutions 42 (1989) 183

Wheat starch effluent
Influence of gel layer rheology on ultrafiltration flux of wheat starch effluent 29 (1986) 97

Whey
Ultrafiltration of protein solutions; the role of protein association in rejection and osmotic pressure 31 (1987) 307

Fouling of an ultrafiltration membrane by a dissolved whey protein concentrate and some whey proteins 36 (1988) 147

Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes 38 (1988) 203

Flux-based measures of adsorption to ultrafiltration membranes 40 (1989) 189

Fouling of ultrafiltration membranes. The role of protein adsorption and salt precipitation 40 (1989) 199

Wood preservatives
The physicochemical basis of the membrane toxicity of pentachlorophenol: an overview 33 (1987) 249

Work diagram
A new work diagram suitable for pervaporation and gas separation under cross flow 36 (1988) 405

X

X-ray diffraction
Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles 29 (1986) 239

Polyimide materials based on pyromellitic dianhydride for the separation of carbon dioxide and methane gas mixtures 35 (1988) 217

Fluorinated polycarbonates for gas separation applications 46 (1989) 93

Isomeric polyimides based on fluorinated dianhydrides and diamines for gas separation applications 50 (1990) 285

X-ray lithography
Microfabrication of membranes with extreme porosity and uniform pore size 36 (1988) 67

X-ray photoelectron spectroscopy
Chemical characterization of ultrafiltration membranes by spectroscopic techniques 36 (1988) 141

A surface science investigation of composite membranes 45 (1989) 225

Z

Zeolites
Zeolite-filled silicone rubber membranes. Part 1. Membrane preparation and pervaporation results 35 (1987) 39

Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite–epoxy–diacrylate resin composites onto cellulose 36 (1988) 277

Zero-order release
Zero-order release from glassy hydrogels. I. Enigma of the swelling interface number 49 (1990) 207

Zinc extraction
Separation of metal species by emulsion liquid membranes 38 (1988) 281

The calculation of permeation rates through supported liquid membranes based on the kinetics of liquid–liquid extraction 39 (1988) 43

Zinc ion permeation
Batch permeation of metal ions using liquid surfactant membranes 46 (1989) 67

Zinc transport
Coupled zinc transport through a bis(2-ethylhexyl)phosphoric acid solid-supported liquid membrane from aqueous perchlorate media 27 (1986) 77

Transport of zinc through a supported liquid membrane using di(2-ethylhexyl) phosphoric acid as a mobile carrier 31 (1987) 209

Macrocycle-mediated cation transport using hollow fiber supported liquid membranes 45 (1989) 73